19-23649-rdd Doc 3428-2 Filed 08/05/21 Entered 08/05/21 15:09:59 Appendix A - Part 1 Pg 1 of 125

Expert Report of David W. DeRamus, PhD

#### **Appendix A. Value of Intercompany Transfers Detail**



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#### Glossary

	Abbreviation
Adlon Therapeutics L.P.	Adlon
Bard Pharmaceuticals Limited	Bard
	Beacon
Coventry Technologies L.P.	Coventry
	ERG
	EHS
Imbrium Therapeutics L.P.	Imbrium
	IACs
	Infinity
	Kolltan
	Lucien
	Millsaw
	MBBV
	MDCBV
	EDO
Limited	MICL
	MIL
perations Limited	МІТОL
	Mundipharama Labs
ic, and Middle East/Africa region	Mundipharma LAM region
	ММСО
	MRL
	TK

#### **Glossary (Continued)**

Full name	Abbreviation
Mundipharma Vertriebsgesellschaft mbH & Co. KG	Mundi KG
Napp Pharmaceuticals Limited	Napp
New Suffolk Holdings L.L.P.	NSH
Novelos Therapeutics, Inc.	Novelos
One Stamford Forum	OSF
One Stamford Realty L.P.	OSR
P.F. Laboratories	PF Labs
Pharma Associates L.P.	PALP
Pharmaceutical Research Associates, Inc.	PRA Inc.
Pharmaceutical Research Associates, L.P.	PRA L.P.
Purdue Pharamaceutical Products L.P.	зхР
Purdue Pharma (Canada)	Purdue Pharma Canada
Purdue Pharma Inc.	ldd
Purdue Pharma L.P.	ЬР∟Р
Purdue Pharma Technologies Inc.	ррті
Rhodes Pharmaceuticals L.P.	Rhodes Pharma
Rhodes Technologies	Rhodes Tech
Rhodes Technologies and Rhodes Pharmaceuticals L.P.	Rhodes
Rosebay Medical Company	Rosebay
RSJ Company L.P.	RSJ
The Terramar Foundation Inc.	Terramar
TXP Services Inc.	ТХР

# Summary of Royalty Transactions (\$ in Millions)

Transaction	Payments from	Payments to	Transaction Amount	Transfer Value	Net Differential to PPLP
<b>A. Ex-U.S. OxyContin Royalties</b> Royalty income from ADF and non-ADF ex-US sales, 2008–2019	IACs	PPLP	\$622	\$1,108	\$486
B. Betadine and Senokot Royalties - PRA Inc. 5% royalty for Betadine and Senokot, 2008–2019	PPLP	PRA Inc.	\$23	No overpayment	No loss of value
C. MS Contin 10% royalty for branded MS Contin, 2009–2017	PPLP	Mundipharma A.G.	\$11	No overpayment	No loss of value
<b>D. Butrans AG - Rhodes Pharma</b> Royalty income (gross profit share), 2017–2019	Rhodes Pharma	PPLP	\$77	\$77	\$0 Within Debtor
E. Dilaudid Generic & Branded Royalty income from license granted in 2010 Additional value retained by Rhodes	Rhodes Pharma	PPLP	\$0	No overpayment	No loss of value as transfer within Debtor

# Summary of IP Rights Transfers and Asset Sale (\$ in Millions)

Transaction	Transfer from	Transfer to	Transaction Amount	Transfer Value	Net Differential to PPLP
<b>A. Non-ADF OxyContin</b> Transfer of rights, titles, and interest in 2017	d∏dd	PRA L.P.	0\$	\$252	\$252
<b>B. Dilaudid Rights</b> Transfer of rights, titles, and interest in 2017	d∏dd	PRA L.P.	0\$	\$23	No loss of value as transfer within Debtor
<b>C. MS Contin</b> Transfer of rights, titles, and interest in 2017	d∏dd	PRA L.P.	0\$	\$22	No loss of value as transfer within Debtor
<b>D. Adhansia Asset Sale to PPLP</b> Purchase price (2018), cost reimbursement (2019), milestone payments (2019) and royalties	Purdue Pharma Canada	bP∟P	\$20.2	\$20.2	0\$
E. Morphine Sulfate Extended Release ("MSER") Profit share payments for rights to sell in 2011 Additional value retained by Rhodes	PP∟P	Rhodes Pharma	\$1.2	\$225	No loss of value as transfer within Debtor

## Summary of Equity Transfers (\$ in Millions)

Sub- Category	Transaction	Transfer from	Transfer to	Transaction Amount	Transfer Value	Net Differential to PPLP
	<b>A. Infinity</b> Transfer of shares in 2008, 2009, and 2013	dTdd	PRA L.P.	0\$	\$305	\$305
Third-Party	<b>B. Novelos</b> Transfer of shares in 2009	PPLP	PRA L.P.	0\$	\$23	\$23
	<b>C. Kolltan</b> Transfer of shares in 2009 and 2014	PPLP	PRA L.P.	0\$	\$15	\$15
	<b>A. Coventry</b> Transfer of equity interest in 2008	dTdd	PRA L.P.	0\$	\$52	No loss of value as transfer within Debtor
	<b>B. NSH</b> Transfer of equity interest in 2010	PPLP	PRA L.P.	0\$	\$33	\$33
Related- Party	<b>C. Millsaw</b> Transfer of equity interest in 2009	PPLP	PRA L.P.	0\$	\$7	\$7
	<b>D. Lucien</b> Transfer of equity interest in 2010	PPLP	PRA L.P.	\$0	\$199	\$199
	<b>E. RSJ</b> Transfer of equity interest in 2010	PPLP	PRA. L.P.	0\$	\$0	0\$

# Summary of Other Transactions (\$ in Millions)

Sub- Category	Transaction	Payments from	Payments to	Transaction Amount	Transfer Value	Net Differential to PPLP
	A. EDO Costs plus 10% for research services, 2013–2019	PPLP	EDO	\$32	\$32	\$0 (Markup ok)
R&D	<b>B. MRL</b> Costs plus 10% for research services, 2008–2019	PPLP	MRL	\$81	\$81	\$0 (Markup ok)
	A. PPTI Purchasing Services Agreement Costs plus 5% for finished products, 2008–2017	d∏dd	PPTI	\$182	\$182	\$0 (Markup ok)
Finished	B. IACs Payments to PPLP Payments plus markups (2011-2015: 15%, 2016-2019: 10%) for finished dosage of OxyContin and MS Contin during 2008–2019	IACs	PP∟P	\$57	\$57	\$0 (Markup ok)
Products	C. Foreign IAC Payments to Rhodes Pharma for LAM Region Finished Products Payments for oxycodone products plus 22% markup in 2016	IACs	Rhodes Pharma	\$0.04	No underpayment	No loss of value
	D. Rhodes Pharma Payments to Mundipharma Labs Payments for theophylline tablets in 2011-2019	Rhodes Pharma	Mundiphar ma Labs	\$5.3	\$5.3	0\$

# Summary of Other Transactions (\$ in Millions)

Sub- Category	Transaction	Payments from	Payments to	Transaction Amount	Transfer Value	Net Differential to PPLP
	A. PPLP Payments to PF Labs Payments for costs plus 10% of manufacturing services during 2008–2014	PPLP	PF Labs	\$19	\$19	\$0 (Markup ok)
Manufacturing	B. PPLP Payments to MIL USA and MITOL Payments for costs plus 10% of manufacturing services during 2016–2019	PPLP	MIL USA & MITOL	87.9	6.78	\$0 (Markup ok)
	C. PPLP Payments to Purdue Pharma Canada Payments for manufacturing and packing services during 2009-2019	d7dd	Purdue Pharma Canada	\$41.1	\$41.1	0\$
	D. Rhodes Pharma Payments to PPLP Payments for manufacturing services during 2011–2019	Rhodes Pharma	PPLP	\$291	\$291	\$0 Within Debtor
API	A. PPLP Payments to Rhodes Tech Payments for API (e.g. oxycodone, hydrocodone) during 2008–2019 Additional value retained by Rhodes	PPLP	Rhodes Tech	\$644	\$463	No loss of value as transfer within Debtor
	B. IACs Payments to Rhodes Tech Payments for API (e.g. oxycodone hydrochloride) during 2008–2019	IACs	Rhodes Tech	\$141	\$122	(\$19)

# Summary of Other Transactions (\$ in Millions)

Sub- Category	Transaction	Payments from	Payments to	Transaction Amount	Transfer Value	Net Differential to PPLP
	A. Security, EHS, and Internal Audit 2008–2019	PPLP	PPTI	\$100	\$95	\$5
	<b>B. Financial and Tax</b> 2008–2019	bP∟P	ТХР	\$20	\$20	\$0 (Markup at market)
Admin services	C. Accounting, HR & Similar 2008–2019	IACs	PPLP	\$0	\$0	Not applicable
	D. Director Consulting & Legal	PPLP	Mundi International Limited (UK)	\$5	0\$	\$5
	E. IT, Benefit, Distribution, & Development	Rhodes	PPLP	\$57	\$57	\$0 Within Debtor
	<b>A. Terramar Space in New York</b> Lease payments, 2008–2019	PPLP	Terramar	\$22.2	0\$	\$22.2
Office space	<b>B. OSR</b> Lease payments, 2008–2019	d∏dd	OSR	\$105	\$105	\$0 (Lease terms at market)
	C. ERG Loan Repayment	ERG	PPLP	\$5	\$5	\$0 (Loan terms at market)

# Summary of Intercompany Transactions With Markups (\$ in Millions)

Туре	Alix Partner Number	Description	Payments from	Payments to	Total Charge	Cost	Cost Markup	Net Differential to PPLP
Transactions with	1F	<b>Terramar Space in New York</b> Costs plus 10% for lease payments, 2008–2019	PPLP	Terramar	\$22.2	\$20.2	\$2.0	\$22.2
unsupported business purpose	<u>.</u>	<b>Director Consulting &amp; Legal</b> Cost plus 10% markup, 2012–2018	PPLP	Mundi International Limited (UK)	\$4.5	\$4.1	\$0.4	\$4.5
Markup above arm's-length rate	5	Security, EHS, and Internal Audit Cost plus 10% for admin services, 2008–Dec 15, 2015	PPLP	PPTI	\$100.1	\$91.0	\$9.1	\$4.8
	<del>U</del>	PPTI Purchasing Services Agreement Cost plus 5% for finished products, 2008–2017	PPLP	PPTI	\$182.1	\$173.5	\$8.7	\$0 (markup ok)
	Ą.	PPLP Payments to MIL USA and MITOL Payments for costs plus 10% of manufacturing services during 2016– 2019	PPLP	MIL USA & MITOL	6.78	\$7.5	\$0.4	\$0 (markup ok)
	Ħ	<b>PPLP Payments to PF Labs</b> Payments for costs plus 10% of manufacturing services during 2008–2014	PPLP	PF Labs	\$18.7	\$17.0	\$1.7	\$0 (markup ok)
Markup at	Ħ.	<b>MRL</b> Costs plus 10% for research services, 2008–2019	₽₽∟₽	MRL	\$80.5	\$73.2	\$7.3	\$0 (markup ok)
arm's-length rate	=	<b>EDO</b> Costs plus 10% for research services, 2013–2019	PPLP	EDO	\$31.5	\$28.7	\$2.9	\$0 (markup ok)
	16	<b>Tax</b> For fir	PPLP	ТХР	\$20.0	\$18.6	\$1.4	\$0 (markup ok)
	δ1	IACs Payments to PPLP Payments plus markups (2011-2015: 15%, 2016-2019: 10%) for finished dosage of OxyContin and MS Contin during 2008–2019	IACs	PP∟P	\$56.6	\$50.7	\$5.9	\$0 (markup ok)
	2B	Foreign IAC Payments to Rhodes Pharma for LAM Region Finished Products Payments for oxycodone products plus 22% markup in 2016	IACs	Rhodes Pharma	\$0.04	\$0.03	\$0.01	0\$>
		Gross Total (Amount Paid by PPLP)			\$467.7	\$433.7	\$34.0	\$31.5
		Net Total (Amount Paid by PPLP Minus Amount Received by PPLP)	by PPLP)		\$411.0	\$383.0	\$28.0	\$31.5

#### Royalties

Foreign OxyContin (1R)

**Estimated Royalty Underpayments for OxyContin Sales** 

Outside of the U.S. by IACs Are \$486MM

#### sales and excludes the \$96MM in royalties received from Japan, as the latter are the result a third-party in Japan. This analysis focuses on the \$519MM in royalties received from IAC PPLP licensed the rights to sell and manufacture both abuse deterrent formulation ("ADF") PPLP received a royalty equal to a percentage of net sales of OxyContin. From January 1, \$615MM was attributable to OxyContin sales. This amount includes sales by the IACs and 2008 to September 15, 2019, PPLP received a total of \$622MM in net royalties, of which and non-ADF forms of OxyContin to foreign IACs. Under these license arrangements,

of a separate arm's-length agreement with a third party.

Prior to losing patent exclusivity in 2013, non-ADF royalty rates were approximately 13% of licensing transactions. The second assessed whether the implied profit split between PPLP net sales. This rate was reduced to 7% from 2013 forward. The royalty for ADF OxyContin, based on the relative contributions made and the relative risks taken by both parties using two approaches. The first approach compared the royalty rates against similar third-party and the IACs is consistent with profit splits observed for similar pharmaceutical licensing We evaluated the reasonableness of these royalty rates between PPLP and the IACs which possesses patent exclusivity through 2023, is approximately 15%.

arrangements.

Appendix A

### Estimated Royalty Underpayments for OxyContin Sales Outside of the U.S. by IACs Are \$486MM (Cont.)

between unrelated parties. Our analysis suggests that an arm's-length royalty rate for expire. This table summarizes (1) the actual IAC royalties, (2) the IAC royalties using than what would have been reasonable given comparable arm's-length agreements the arm's-length or market rates, and (3) the difference. Underpayments based on Based on our analysis, the royalty rates IACs paid for OxyContin sales were lower patent-protected OxyContin is 25%, which is reduced to 12.5% after the patents the arm's-length royalty rates total \$486MM during 2008—Sept. 15, 2019.

\$ in millions	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Sep. 2019	Total
	\$63	IAC Royalties \$63 \$67	\$74	\$79	\$71	\$36	\$37	\$31	\$28	\$15	\$11	2\$	\$519
<del>0)</del>	Market Royalties \$128	\$134	\$145	\$156	\$140	\$64	\$65	\$55	\$52	\$31	\$22	\$13	\$1,005
	99\$	29\$	\$72	\$76	69\$	\$27	\$29	\$25	\$24	\$16	\$11	\$6	\$486

revenue (\$3.2MM) to arrive at OxyContin royalties (\$615MM). This also excludes \$96MM in royalties for Japan as they are covered under a separate agreement with a third party. Market royalties are calculated year by year as the net sales for that year multiplied by a blended royalty rate which reflects the proportion of patent exclusive sales to non-exclusive sales and scales up that ratio by the propriate royalty rates (25% for exclusive, 12.5% for non-exclusive). An R&D adjustment is also made to account for licensing and other fees that Note: AlixPartners reported total royalties received by PPLP from IACs and PALP between 2008 and Sept. 15, 2019 to be \$622MM. We exclude Purdue should not have paid as compared to the comparables. The total market royalties shown above ignore the royalties for PTT, royalties for Purdue Transdermal Tech (\$3.7MM) and Japan, including them would lead to a higher figure.

### **Evaluating the Royalty Rates**

We evaluated the reasonableness of royalty rates between PPLP and the IACs using two approaches:

- Method 1: Comparable royalty rates from third-party licensing transactions
- Method 2: Profit split analysis

Considerations that will affect OxyContin market royalty rate include:

- Historical ADF and non-ADF OxyContin profits and profit share
- Projected ADF and non-ADF OxyContin profits and profit share at the time of the license agreements
- Terms of initial license agreements at the time of market entry, e.g., royalties, milestone payments, etc.
- between the licensor (PPLP) and licensees (Mundipharma entities) Strategic business considerations, IP rights, and bargaining power

### **Method 1: Comparable Royalty Rates**

- Identify comparable third-party IP license agreements
- Analyze terms of comparable agreements
- Royalty rates, up-front fees, milestone payments, etc.
- Issues to consider when determining comparability:
- Product characteristics: product type, development stage, exclusivity,
- Obligations and rights of licensor and licensee
- Scope of IP rights included
- Expected sales and profitability of licensed product
- Geographic scope of license (U.S. vs. ex-U.S.)
- PPLP uses a similar comparables-based approach in evaluating in-licensing opportunities

#### 4

# Method 2: Profit Split Between Licensor and Licensee

- Analyze licensing agreement terms based on expected value of contributions by licensor and licensee
- Terms usually stated as royalty rate(s) and other payments (upfront payments, regulatory and sales milestones)
- Key consideration is the expected profit split between the parties
- Reasonableness of royalty rates can be inferred based on estimated profit split between licensor and licensee
- Evaluate IAC profit and loss ("P&L") data to analyze profit split and implied royalties
- PPLP uses a similar profit split analysis in evaluating in-licensing and out-licensing opportunities

## OxyContin (ADF and Non-ADF) Royalties

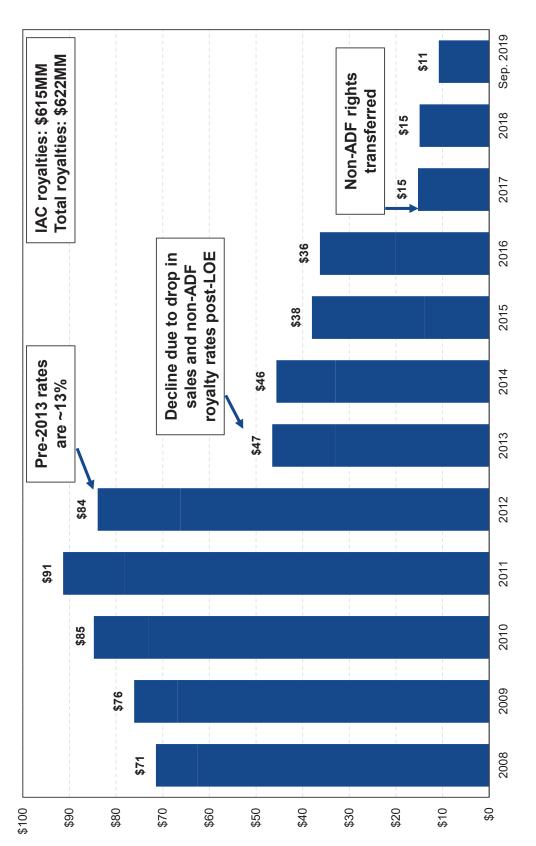
PPLP received \$622MM in net royalty payments, \$615MM of which are OxyContin royalties received from IACs through PALP and others from 2008 through Sept. 15, 2019. \$519MM in royalties was from IAC sales sales in Japan. and \$96MM was ultimately from third-party

Pre-2013, non-ADF, OxyContin royalty rates were approximately 13%. Non-ADF royalty rates from 2013 to 2016 were 7% for most countries, but 13% for Arab States, Jordan, and Kuwait.

for certain IP related to ADF technology. scope and includes distribution only: it does not include manufacturing, ADF royalty rates from 2013 to the present were between 12.5% to 15%. India has an 11.5% royalty, but that agreement is narrower in importing, or warehousing. Additionally, PPLP is obligated to pay a 2.5%–5% royalty to [

Non-ADF exclusivity expired in 2013, while ADF exclusivity is expected to run out in 2023. Source: IAC Product P&L - Total OxyContin Incl AG (IACS\_0001705300), License agreements between PPLP and Mundipharma, Assignment of Income license agreement and amendments, to PALP, License Agreement Expenses Agreement (Dec 15, 2005) by and between PALP and PPLP; I

### PPLP Received \$622MM in Net Royalty Payments, \$615MM of Which Are OxyContin Royalties Received From IACs Through PALP and Others



Source: Intercompany and Non-Cash Transfers Analysis (Alix Partners, May 28, 2020), page 214. The overall net royalty payment was \$622MM, \$7MM of which is royalty income from a third party and from Purdue Transdermal Tech ('PTT'), less expenses.

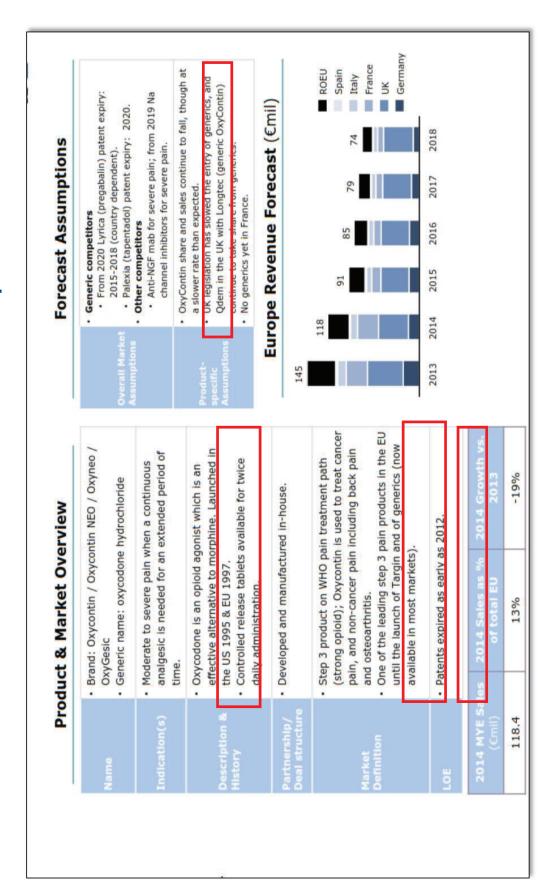
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### Increased Competition Ex-U.S. and Lower Royalty Rates Decline in Royalty Revenues After 2012 Attributable to

in non-ADF royalty rates led to a reduction in PPLP royalty revenues to a decline in IACs' OxyContin revenues. Additionally, the reduction PPLP's patents on non-ADF formulation expired in 2013, which led

Note: In the U.S., FDA notified manufacturers it would not approve generic extended release non-ADF formulations. This gives Purdue OxyContin exclusivity in the U.S. until at least 2023. However, there are authorized generics of the ADF version in the U.S., including from Teva, and generic non-ADF formulations of OxyContin outside the U.S.

### Shows Initial Decline but at "Slower Rate than Expected" Thereafter June 2014 Mundipharma Forecast for Europe After OxyContin LOE

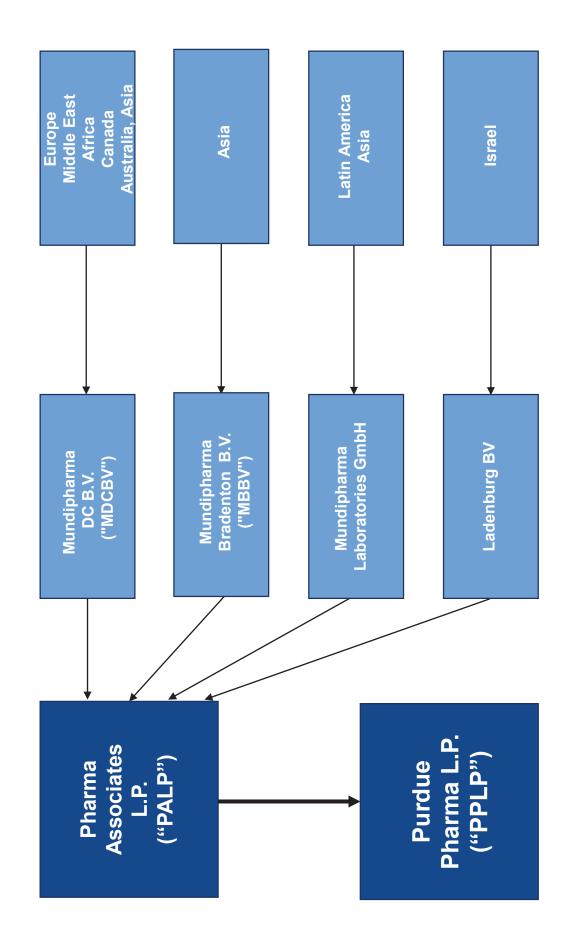


Source: PPLPUCC000894705 at pg. 63. The sales was forecasted to decline 19% in 2014 but only by 7% in 2018.

# OxyContin was Launched in 1995 in the U.S. and Between 1996 and 2013 in Ex-U.S. Markets

Territory	Entity	Date of launch
United States	Purdue Pharma LP	December 1995
Canada	Purdue Pharma	June 1996
Nordic	Norpharma / Mundipharma	December 1996
Germany	Mundipharma GmbH	August 1998
Ireland	Mundipharma Pharm. Ltd	January 1999
Australia	Mundipharma Pty Ltd	September 1999
United Kingdom	Napp Pharma. Ltd	January 2000
Netherlands	Mundipharma Pharm. BV	December 2000
Switzerland	Mundipharma Medical Co	February 2001
Eastern Europe	Mundipharma Medical GmbH	February 2001
Austria	Mundipharma GesmbH	March 2001
South Korea	Mundipharma Korea Ltd	March 2001
France	Mundipharma SAS	April 2002
Spain	Mundipharma SL	June 2004
Italy	Mundipharma Srl	March 2005
New Zealand	Mundipharma NZ Ltd	July 2005
Southeast Asia	P'pines, HK, Malaysia, S'pore	July 2005
China	MCPC	August 2004
Belgium	Mundipharma CVA	February 2007
Poland	Norpharma	July 2008
South Africa	Mundipharma Pty Ltd	March 2012
Latin America	Brazil, Colombia	July 2013

# Illustrative flow of OxyContin Royalty Payments by IACs



Source: Purdue Pharma L.P. Corporate Structure Detail, April 22, 2019, Slides 13-14. PALP paid royalties to PPLP less a \$50,000 yearly service fee.

## **Licensor and Licensee Responsibilities**

- Non-ADF and ADF agreements cover more than 69 countries
- Royalty rates by agreement (non-ADF and ADF) and by country
- patents; Non-ADF agreements do not ADF agreements include
- Licensor responsibilities
- Pay registration fees, clinical trials, and other costs of ex-U.S. OxyContin regulatory approval
- Prosecute copyright, patent, and/or trademark infringement; misappropriation of know-how
- patents (ADF agreements only) Pay fees to renew/maintain
- Licensee responsibilities
- Manufacture or import
- Warehouse, maintain security, maintain three months of inventories
- Market, promote, distribute, and sell to doctors, hospitals, pharmacists, and wholesalers
- Register and obtain regulatory approvals, obtain and maintain best reimbursed price
- Pay fees to renew and maintain patents and trademarks
- Maintain product liability insurance
- Reimburse licensor for ex-U.S. OxyContin regulatory approval registration fees

# Licensor and Licensee Responsibilities (Continued)

- GRANT OF LICENCES AND RESTRICTIONS
- 2.1 Licence to Manufacture, Use and Sell

Patents, Technical Copyright and Know-how to Licensee for use in connection therewith warehouse, use, market, promote, distribute and sell the Preparation in the Territory and Licensor hereby grants to Licensee a licence to import, manufacture, have manufactured to use the Copyrights in relation thereto and Licensor hereby assigns the Trademarks, but for no other purpose whatsoever.

#### 2.2 Exclusivity

promote, distribute or sell the Preparation in the Territory or license others to import, Licensor will not import, manufacture, have manufactured, warehouse, use, market, manufacture, have manufactured, warehouse, use, market, promote, distribute or sell the Preparation in the Territory.

#### 2.3 Assignment of Trademarks

until expiry or termination of this Agreement in its entirety in accordance with paragraphs 3, 7.5, 12.1.5, 12.2, 22.1, 22.2 or 22.3.1 hereof, whichever shall be the earlier Licensor shall assign to Licensee, all right, title and interest in and to the Trademarks and to give effect to the foregoing agreement Licensor shall as soon as reasonably practicable: 19-23649-rdd

# Licensor and Licensee Responsibilities (Continued)

- HEALTH REGISTRATION AND PRICE APPROVAL 12.
- Registration 12.1
- 12.1.1 Registration with Regulatory Authorities

Licensee will obtain registration with the relevant Regulatory Authority in the maintain, throughout the term of this Agreement, the best reimbursed price possible for each strength of the Preparation. Licensee will keep Licensor promotion, marketing, offering for sale and sale of the Preparation throughout the notify Licensor immediately of the date that registration is completed. The cost of obtaining registration, including the cost of clinical trials or other work carried out Territory as well as all other formalities and will obtain all approvals which shall be necessary (including, but not limited, to Pricing Approval) in order to permit the importation, manufacture, packaging, use, warehousing, distribution, Territory. Licensee shall use its best efforts to obtain, as soon as possible, and informed of all progress and, if there are delays, the reason for any delay and will in each case with the approval of Licensor to support application for registration, shall be borne by the Licensor.

- Part 1

#### 12.1.2 Provision of Assistance and Data by Licensor

At cost of Licensee, Licensor will provide reasonable assistance to Licensee in connection with the registration of the Preparations pursuant to paragraph 12.1.1.

#### 12.1.3 Reimbursement of Licensor

Licensee will reimburse Licensor or its Associates the registration fees paid to the relevant Regulatory Authority and shall reimburse Licensor or its Associates on If Licensor or any of its Associates has obtained or completed or partly completed registration of any the Preparation with the relevant Regulatory Authority, demand the cost incurred by Licensor or its Associates in connection with the said registration on a full indemnity basis.

#### Patents Contributes to the **Exclusivity of ADF OxyContin** PPLP's License of

GmbH and Licensor dated July 29, 2011 (as amended), brief particulars of which are set forth in Annex I hereto and any patents granted on the applications as well as any divisions or extensions thereof (including extensions by way of supplementary protection certificates) and if more than one, any Patents" shall mean the patents and/or applications licensed from GmbH to Licensor pursuant to that certain Patent License Agreement GmbH and Licensor dated March 17, 2009 (as amended) and Patent one or more of such patents as the context admits; License Agreement between between  $\infty$ 

Source: Manufacturer's License Agreement between PPLP and Mundipharma DC B.V. for OxyContin OTR in Canada, entered into 1 January 2018, effective date 1 February 2016, PDF page 7.

DURATION

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This Agreement comes into force upon the Effective Date, and unless hereof, shall extend for the life of the respective longest lasting Patent on a Neither Party shall have any right to terminate this Agreement (including any sooner terminated pursuant to the provisions of paragraphs 6, 7, and 11 rights by operation of German civil code) other than such rights expressly country by country basis unless otherwise provided in this Agreement. granted in this Agreement.

## ADF Licenses Between PPLP and Mundipharma Structured to Provide PPLP a 10% Net Royalty

Effective Date	Licensor	Licensee	Territory	Royalty Rate Paid by IAC	Royalty Rate	Net Royalty Rate Received by PPLP
2016	PPLP	Mundipharma DC B.V.	Canada, Australia	15%	5%	10%
2017	PPLP	Mundipharma DC B.V.	Lebanon, Malaysia, Singapore, Thailand, The Philippines, and Vietnam	12.5%	2.5%	10%
2017	PPLP	Mundipharma DC B.V.	South Korea	14.5%	4.5%	10%
2017	PPLP	Mundipharma Laboratories GmbH	Brazil, Mexico	14.5%	4.5%	10%

Source: OxyContin agreements for ADF (2018) and non-ADF (2016).

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## Non-ADF License Agreement Between PPLP and Mundipharma are Mostly 7% After 2012

Effective Date Licensor	Licensor	Licensee	Territory	Royalty Rate
2016	d∏dd	Mundipharma DC B.V.	Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Montenegro, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine, Austria, Belgium, China, Cyprus, Denmark, Egypt, Finland, France, Germany, Hong Kong, Iceland, Ireland, Italy, Lebanon, Netherlands, New Zealand, Norway, Poland, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, The Philippines, The United Kingdom	%2
2016	PPLP	Mundipharma DC B.V.	Arab States: Algeria, Bahrain, East Africa, Iraq, Libya, Morocco, Oman, Pakistan, Qatar, Syria, Tunisia, United Arab Emirates, Yemen, West Africa, Jordan, Kuwait	13%

Note: In 2016, 99.7% of non-ADF royalties were paid at a royalty rate of 7%. The average royalty rate weighted by sales was 7.4%. Source: OxyContin agreements for ADF (2018) and non-ADF (2016). Royalty statements show that China pays a royalty rate of 8%. See Purdue Pharma L.P. Corporate Structure Detail, April 22, 2019, 15–16.

# OxyContin Ex-U.S. Royalties by Region (\$ in MM)

Region	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Colombia	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.5
East Europe	\$1.1	\$1.1	\$1.7	\$1.4	\$1.0	\$0.3	\$0.3	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$7.4
Netherlands	\$1.8	\$1.2	\$1.9	\$2.3	\$2.0	\$0.5	\$0.3	\$0.2	\$0.3	\$0.0	\$0.0	\$0.0	\$10.5
France	\$2.0	\$2.5	\$3.1	\$3.7	\$4.1	\$2.7	\$2.9	\$2.4	\$1.7	\$0.0	\$0.0	\$0.0	\$24.9
Ireland	\$0.4	\$0.3	\$0.3	\$0.4	\$0.4	\$0.2	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$2.3
Norway	\$0.8	6.0\$	\$0.5	\$1.6	\$1.2	\$0.3	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$6.0
Austria	\$0.4	\$0.3	\$0.3	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3
Italy	\$1.4	\$2.3	\$3.2	\$3.3	\$2.4	\$1.1	\$1.1	\$0.7	\$0.5	\$0.0	\$0.0	\$0.0	\$15.9
Spain	\$0.7	\$0.9	\$1.2	80.9	\$0.7	\$0.2	\$0.2	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$5.0
Belgium	\$0.2	\$0.3	\$0.5	\$0.6	\$0.4	\$0.2	\$0.2	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$2.7
Japan	\$8.9	\$9.1	\$11.2	\$12.0	\$13.2	\$10.2	0.6\$	\$7.3	\$8.2	\$0.1	\$3.6	\$3.4	\$96.2
Sweden	\$2.0	\$1.9	\$2.0	\$2.2	\$1.2	\$0.5	\$0.3	\$0.2	\$0.3	\$0.0	\$0.0	\$0.0	\$10.6
Israel	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$1.2
Australia	\$4.8	\$5.9	\$7.5	\$8.8	0.6\$	\$7.8	\$6.4	\$3.2	\$3.4	\$0.0	\$0.0	\$0.0	\$56.8
South Korea	\$1.4	\$1.3	\$1.3	\$1.3	\$1.3	\$0.4	\$0.4	\$0.4	\$0.4	\$2.6	\$1.9	\$0.8	\$13.5
Finland	\$0.8	\$0.8	\$0.6	\$0.7	\$0.7	\$0.3	\$0.2	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$4.3
Canada	\$22.0	\$24.6	\$27.9	\$28.8	\$20.0	\$10.9	\$11.8	\$10.6	\$10.0	\$12.4	\$9.2	\$6.0	\$194.2
U.K.	\$7.6	\$8.0	\$7.1	\$7.8	\$9.3	\$4.2	\$4.4	\$3.7	\$2.6	\$0.0	\$0.0	\$0.0	\$54.8

Source: IAC royalty reports 2008 – 2019.

# OxyContin Ex-U.S. Royalties by Region (\$ in MM) (Continued)

Region	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Denmark	\$2.6	\$2.5	\$2.4	\$2.4	\$1.9	\$0.1	\$0.1	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$12.3
Germany	\$10.7	\$9.5	\$8.8	\$8.3	\$9.9	\$1.8	\$1.2	\$1.0	\$1.3	\$0.0	\$0.0	\$0.0	\$52.3
Mexico	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.3
Switzerland	\$1.2	\$1.3	\$1.6	\$1.8	\$1.8	\$0.8	\$0.6	\$0.4	\$0.3	\$0.0	\$0.0	\$0.0	89.8
New Zealand	\$0.2	\$0.3	\$0.5	\$0.5	\$0.5	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2.4
Singapore	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2
Latin America	\$0.4	\$0.5	\$0.5	\$0.6	\$0.7	\$0.6	\$1.1	\$1.1	\$0.1	\$0.2	\$0.2	\$0.1	\$6.1
Cyprus	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4
Philippines	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.1	\$0.1	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$1.4
China	\$0.0	\$0.3	\$0.6	\$0.9	\$1.4	\$2.5	\$3.4	\$4.6	\$5.2	\$0.0	\$0.0	\$0.0	\$18.7
Arab States	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2
Malaysia	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.8
Poland	\$0.0	\$0.0	\$0.0	\$0.2	\$0.3	\$0.2	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$1.3
South Africa	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.5
Hong Kong	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.03	-\$0.01	\$0.0	\$0.0	\$0.0	\$0.02
Thailand	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.04	\$0.0	\$0.0	\$0.0	\$0.04
Iceland	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.01	\$0.0	\$0.0	\$0.0	\$0.01
Total	\$71.5	\$76.1	\$84.8	\$91.4	\$84.0	\$46.5	\$45.6	\$38.0	\$36.3	\$15.3	\$14.9	\$10.4	\$614.8

### Comparable Royalty Rate Analysis for ADF OxyContin (Method 1)

license agreements, we reviewed more than 4,000 public license agreements to For Method 1, which involves comparing the royalty rates of comparable IP identify comparable agreements in the pharmaceutical industry.

- All comparable license agreements are for products under exclusivity (excl. generics and biosimilars)
- 27 potential comparables identified based on the following criteria:
- Agreements involve pharmaceutical preparations
- Agreements specify royalty rate
- Arm's-length relationship between licensors/licensees
- Excluded co-development agreements, asset sales, medical devices or technologies, agreements involving universities or other not-for-profits, etc.
- Of these 27 potential comparables, 8 were pain-related licensing agreements

We also identified 10 additional arm's-length agreements for a total of 37 potential comparables.

for Non-ADF We also reviewed Mundipharma third-party licenses with OxyContin, OTR OxyContin, and Targin.

### **Examples of Criteria Used to Reject Potential Third-Party** Comparable Licensing Agreements

- The licensor is a university, not-for-profit, or government agency (tends to be a new compound that needs more research)
- The licensor is an individual
- Involves animal health products (different markets, pricing, and regulatory approval processes)
- · Medical devices (different markets, pricing, manufacturing, and regulatory approval processes)
- Involve legal disputes or settlements
- Involve asset deals, acquisitions, financing, or other non-licensing related transactions
- Cross-licenses of IP

#### Regression Analysis of License Agreements (Method 1)

Regression analysis is used to relate a variable of interest, such as regression analysis is implemented on the 37 comparable license market royalty rates in this analysis, to factors that influence it. It provides a measure of how the variable of interest increases or decreases, on average, as these different factors change. The agreements.

The analysis yields an expected royalty rate of 25% for OxyContin, as a late-stage pain product in pill form sold ex-U.S. under an exclusive license. This estimate of 25% is consistent with the median to upper quartile royalty rates of 20% to 30% observed across various subsets of the OxyContin is expected to be in the upper part of that range with 37 comparable agreements. Given its size and profitability, other comparable late-stage pain products.

### Regression Analysis Results

- Regression model estimates ex-U.S. OxyContin royalty rates of between 23% and 25% (pre-LOE)
- Two alternative samples: 27 public comparable license agreements from commercial database vs. expanded set of 37 agreements
- Regression analysis uses "effective" royalty rates
- Most agreements specify different royalty rates depending on sales, as well as prepayments or milestone payments
- payments into effective royalty rates based on total IAC OxyContin Converted these sales-dependent rates, milestones, and other sales during 2008 to 2018
- OxyContin's exclusive licenses for a late-stage pain product in pill form should be associated with a higher estimated royalty rate
- However, ex-U.S. markets are generally associated with lower estimated royalty rates

# **Explanatory Variables Included in Regression Model**

- Whether product is for pain (therapeutic area)
- Whether product is in late stage of clinical development (Phase III or approved)
- Whether product is in pill form
- Whether product is related to opioids (larger sample only)
- Whether license territory is outside North America
- Whether licensor supplies the product
- Whether royalty rate includes payment for licensors' product costs

#### 0

### Regression Estimate of Market Royalty Rate Based on Public Comparables

Percentage-Point Adjustments for OxyContin Characteristics	Effective Royalty Rate (27 Agreements)	Effective Royalty Rate (37 Agreements)
Base Royalty Rate	13.8%**	18.8%***
Adjustment for Pain Product	3.2%	0.5%
Adjustment for Late Stage Product	%8'9	1.4%
Adjustment for Product Sold Ex-U.S.	-6.3%	
Adjustment for Pill Product	7.4%	6.2%
Royalty Rate for Product Comparable to OxyContin	24.9%	23.2%

\*\*\*Statistically significant at the 1% level; \*\*Statistically significant at the 5% level
Note: Effective royalty rate (with other payments): ex-U.S. OxyContin sales for 2008 to 2018 applied to tiered royalty rates and sales milestones (upfront payments and other milestone payments are assumed to be paid in the first year)

### Ranges of Comparable Market Royalty Rates for ADF OxyContin (Method 1)

- Considers effective royalty rates
- Accounts for royalty rates tiered on basis of sales, and adds other forms of payments
- Potential comparables: 37 observations
- Median royalty rate: 20% (effective rate)
- Interquartile (25th to 75th percentile) range of royalties: 15% to 26%
- 14 potential pain-related comparables:
- Median royalty rate: 23% (effective rate)
- Interquartile range: 16% to 29%
- 19 potential ex-U.S. comparables:
- Median royalty rate: 20% (effective rate)
- Interquartile range: 13% to 25%

## Summary Ranges for 37 Potential Comparables

Royalties	Minimum Rate in Agreements	Average Rate in Agreements	Maximum Rate in Agreements	Effective Rate with Other Payments
Average 16.5%	16.5%	19.3%	22.1%	21.9%
Median	15.0%	17.5%	20.0%	20.1%
	10.0%	12.5%	15.0%	15.0%
	20.0%	20.5%	25.0%	25.6%

and milestone payments, which would increase the effective royalty rate. Effective royalty rate is based on agreement terms applied to 2008–2018 ex-U.S. account for factors specific to OxyContin, e.g., market size, market share and competition, profitability, region-specific factors, contributions to IP, roles of Note: Average is the mid-point of minimum and maximum royalty rates. The minimum, maximum and average royalties do not include upfront payments OxyContin Sales. The comparables provide ranges of market royalty rates applied to OxyContin sales, but the appropriate royalty for OxyContin should licensor and licensee, etc.

#### Summary Ranges for 14 Pain-Related Potential Comparables

Royalties	Minimum Rate in Agreements	Average Rate in Agreements	Maximum Rate in Agreements	Effective Rate with Other Payments
Average 19	19.3%	22.1%	24.8%	25.0%
Median	17.0%	19.4%	20.8%	22.9%
25 <sup>th</sup> Percentile 10.	10.0%	12.5%	15.0%	16.0%
75th Percentile	25.0%	28.0%	28.0%	28.8%

and milestone payments, which would increase the effective royalty rate. Effective royalty rate is based on agreement terms applied to 2008–2018 ex-U.S. account for factors specific to OxyContin, e.g., market size, market share and competition, profitability, region-specific factors, contributions to IP, roles of Note: Average is the mid-point of minimum and maximum royalty rates. The minimum, maximum and average royalties do not include upfront payments OxyContin Sales. The comparables provide ranges of market royalty rates applied to OxyContin sales, but the appropriate royalty for OxyContin should licensor and licensee, etc.

## Summary Ranges for 19 Ex-U.S. Potential Comparables

Royalties	Minimum Rate in Agreements	Average Rate in Agreements	Maximum Rate in Agreements	Effective Rate with Other Payments
Average 16	16.5%	18.6%	20.8%	20.0%
Median	15.0%	17.3%	20.0%	20.0%
25 <sup>th</sup> Percentile	10.0%	12.5%	13.0%	13.2%
75 <sup>th</sup> Percentile	20.0%	20.0%	25.0%	25.4%

and milestone payments, which would increase the effective royalty rate. Effective royalty rate is based on agreement terms applied to 2008–2018 ex-U.S. account for factors specific to OxyContin, e.g., market size, market share and competition, profitability, region-specific factors, contributions to IP, roles of Note: Average is the mid-point of minimum and maximum royalty rates. The minimum, maximum and average royalties do not include upfront payments OxyContin Sales. The comparables provide ranges of market royalty rates applied to OxyContin sales, but the appropriate royalty for OxyContin should licensor and licensee, etc.

### Summary of 37 Comparable Agreements

				Average of	Effective Rate (% of Sales)	(% of Sales)
Year	Licensor	Licensee	Drug (Indication)	Minimum and Maximum Rates as % of Sales	Without Upfront and Milestones	With Upfront and Milestones
2015	Elite Pharmaceuticals Inc.	Epic Pharma LLC	Oxycodone HCI IR with sequestered naltrexone (an opioid pain treatment)	20%	20%	20%
1997	BioTime, Inc.	Abbott Laboratories	Hextend (increases volume of blood plasma)	21%	36%	43%
2002	SkyPharma Canada, Skyepharma	Endo	Depomorphine <sup>™</sup> and Propofol IDD- D <sup>™</sup>	40%	40%	41%
1998	Aphton Corp.	SmithKline Beecham	Gonadimmune®	48%	36%	37%
2002	Leo Pharmaceutical Products Ltd. A/S	Pharmion Corporation	Pharmaceutical products containing tinzaparin sodium (for parenteral use known as INNOHEP)	33%	35%	35%
2006	BioDelivery Sciences International, Inc.	Meda AB	BEMA fentanyl product (opioid pain treatment)	33%	33%	33%
2007	BioDelivery Service International	Meda AB	Fentanyl (opioid pain treatment)	28%	28%	29%
2004	Vernalis PLC	Endo Pharmaceuticals	Frova (frovatriptan succinate) (migraine)	50%	20%	29%
2007	Santarus, Inc.	Glaxo Group Limited	Zegerid® (proton pump inhibitor)	23%	26%	27%
1998	Cytogen Corporation	Berlex Laboratories, Inc.	Quadramet (treatment for bone related cancers)	25%	25%	26%
2005	Atherogenics, Inc.	IPR Pharma and AstraZeneca	Compound AGI-1067, AGI-1067 is an investigational oral drug for the treatment of atherosclerosis, the underlying disease process that leads to heart attacks and strokes. At time of agreement, it was in Phase III.	17%	16%	25%
2011	Shore Therapeutics, Inc., Cowen Healthcare Royalty Partners, L.P.	Sanitarus, Inc.	Fenofibrate products (reduces cholesterol)	15%	24%	25%
2005	Progenics Pharma., Inc.	Wyeth	R-MNTX for use in post-operative bowel dysfunction and opioid-induced constipation	20%	18%	24%

# Summary of 37 Comparable Agreements (Continued)

				Average of	Effective Rate (% of Sales)	(% of Sales)
Year	Licensor	Licensee	Drug (Indication)	Minimum and Maximum Rates as % of Sales	Without Upfront and Milestones	With Upfront and Milestones
2008	Cell Genesys	Takeda Pharmaceutical Co	GVAX	20%	20%	24%
2006	Ligand Pharma., Inc.	King Pharma., Inc.	Avinza (morphine sulfate ER)	10%	15%	24%
2005	Pain Therapeutics, Inc.	King Pharma., Inc.	Tamper-resistant opioids, including Remoxy. Included use of SABER technology.	19%	17%	22%
2003	Pozen	GlaxoSmithKline	Treximet (migraine) (injection)	18%	18%	22%
2015	Novartis, AG, Sandoz, Inc.	Endo Ventures Limited	Voltaren® Gel diclofenac sodium topical gel 1% (pain treatment)	20%	20%	21%
2000	MGI PHARMA, INC., Merck KGaA, E. Merck	CIBA Vision AG	Pilocarpine hydrochloride (treatment for post-radiation xerostomia and xerostomia)	20%	20%	20%
2005	Collegium Pharmaceutical, Inc.	Teamm Pharmaceuticals, Inc.	AllerNase AQ (allergy nasal spray)	20%	20%	20%
2006	Amarillo Biosciences, Inc.	Bumimedic (Malaysia) Son. BHD	Formulation or composition containing IFN (treatment for influenza)	20%	20%	20%
2004	NPS Allelix Corp., Nycomed Danmark APS	Nycomed Danmark APS, NPS Allelix Corp.	Recombinant human parathyroid hormone (treatment for hypoparathyroidism)	16%	18%	19%
2013	Novartis AG, Novartis Pharma AG	Akasia Limited, Questcor Pharmaceuticals, Inc.	Synacthen and Synacthen Depot (conditions for which glucocorticoids are indicated)	12%	12%	16%
2006	SDI Diagnostics International LTD	Avigen, Inc.	Tolperisone (treatment for acute pain)	13%	14%	16%
2003	Orphan Medical, Inc.	Celltech Pharmaceuticals, Ltd.	Xyrem (treatment for narcolepsy)	15%	15%	16%
2005	Access Pharmaceuticals, Inc.	Discus Dental Inc.	Aphthasol and OraDisc A (aphthous ulcers)	15%	15%	15%
2007	CollaGenex Pharmaceuticals, Inc.	MediGene AG	Controlled-release doxycycline (treatment for infections)	14%	15%	15%

# Summary of 37 Comparable Agreements (Continued)

				Average of	Effective Rate	Effective Rate (% of Sales)
Year	Licensor	Licensee	Drug (Indication)	Minimum and Maximum Rates as % of Sales	Without Upfront and Milestones	With Upfront and Milestones
2014	Urigen Pharmaceuticals, Inc.	Imprimis Pharmaceuticals, Inc.	Products containing alkalinized lidocaine and Heparine (for treatment of lower tract disorders)	18%	15%	15%
2003	Eli Lilly & Co.	Neurogenetics, Inc.	LY293558, a small molecule compound for post- operative pain, migraines, and epilepsy (appears to be subcutaneous per a dinical trial but unclear what final form was)	13%	14%	14%
2002	Scios, Inc.	Glaxo Group LTD., Scios, Inc.	Intravenous formulation of Natrecor B-type natriuretic peptide (treatment for heart conditions)	10%	13%	13%
2004	Connetics Corporation	Pierre Fabre Dermatologie	Clobetasol Propionate Mousse (prevention of skin dermatoses)	13%	13%	13%
2003	EpiCept Pharma	Adolor Corporation	LidoPAIN® SP (a topical pain treatment)	11%	11%	12%
2003	EpiCept Corporation	Endo Pharmaceuticals Inc.	LidoPAIN® BP (a topical pain treatment)	10%	10%	11%
2008	BioSante Pharmaceuticals, Inc., Antares Pharma IPL AG, Permatec Technologie, AG	Azur Pharma International II Limited	Elestrin (transdermal gel preparations for menopause)	10%	10%	10%
1998	Access Pharmaceuticals, Inc.	Strakan Ltd.	Topical product containing amlexanox (aphthous ulcers)	10%	10%	10%
2007	Laboratories Thea S.A.	Sirion Therapeutics Inc.	Ophthalmic product (treatment of viral kerato- conjunctivitus)	10%	10%	10%
2001	Amgen Inc.	Intermune, Inc.	for g	7%	%2	8%

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Average (Pain, n = 14) 22.1% 22.5% 25.0%	22.1%	22.5%	25.0%
Average (Ex-U.S., n = 19) 18.6% 18.4% 20.0%	18.6%	18.4%	20.0%
Average (All) 19.3% 20.0% 21.9%	19.3%	20.0%	21.9%
Median (All) 17.5% 18.0% 20.1%	17.5%	18.0%	20.1%
25th percentile (All) 12.5% 13.5% 15.0%	12.5%	13.5%	15.0%
75th percentile (All)	20.0%	24.5%	25.6%

Appendix A

#### Ranges of Comparable Royalty Rates for Non-ADF OxyContin Post LOE (Method 1)

Method 1: Analyzed royalty rates for comparable IP license agreements

- Three pain-related public comparables have average royalty rates after patent expiry of ~11%
- , a third-party, had a 10% royalty rate after Japanese OxyContin patent expired in 2013
- in Japan to manufacture, distribute, market, and sell using all know-how Mundipharma BV licenses OxyContin to I
- 2001 amendment set royalty of 15% through 2013 and 10% thereafter (post LOE)
- pays Mundipharma KK an additional 10% co-promotion fee
- 10% co-promotion fee funds Mundipharma KK promotional activities; not additional royalty
- tamper-resistant) and Targin was 12.5% in the final 5-years of the 15license's proposed terms for OTR (OxyCodone year period • 2013

Source: Boards of directors meetings (Asia Pacific companies), January 22, 2010, see PPLPUCC004014603 pages 37 and 38; UCCINV0003946602, 1, 5, 6; Boards of Directors Meetings (International Companies) Thursday, September 12, 2013 Proposed Board Decision, Sept. 12, 2013.

#### for Non-ADF Mundipharma License With

#### OxyContin

- 15% royalty until 2015; then 10% until 2018
- Japanese OxyContin exclusivity expired in early 2013

Royalty income of 15% until 2013, thereafter 10% until 2018;

Mundipharma KK receives on top a 10% Co-Promotion Fee

Japanese OXYCONTIN® patent expires in Q1 2013;

Source: Boards of directors meetings (Asia Pacific companies), January 22, 2010, see PPLPUCC004014603 pages 37 and 38.

on OTR sales

#### for OTR OxyContin Mundipharma License With and Targin

- OTR (Oxycodone Tamper Resistant) OxyContin royalty rate of 19.5% initially
- 15% royalty for the first 10 years; then 12.5% for next five years

on OTR sales - In addition, 4.5% royalty due to

September 12, 2013

Licensing OTR and Targin® to Shionogi in Japan

Subject to Shionogi paying, in addition to the royalities noted below, 4.5% royality that will be due to Grünenhall on OTR sales in Japan. His recommended that Mundipharma out-license OTR and Targin\* to Shionogi in.

4.5% royalty that will be due to

Amount Integer Expected Date
USD 10 million U.S. FDA approval of Traign of star of mistin numan rials for Traign.

by-product basis and 12.5% for the next five years on a product-by-Royalty Rate - 15% for the first ten years post launch on a productproduct basis; and

missiones on aggregate sales of all products that include oxycodone:

Source: Boards of Directors Meetings (International Companies) Thursday, September 12, 2013 Proposed Board Decision, Sept. 12, 2013.

60.0% 37.5% 72.9%

37.3% 36.3% 55.7%

11.3% 12.2% 7.8% 5.3% 4.5% 8.3%

> 20.6% 18.2% 17.5% 12.8% 21.9%

16.4% 15.1%

Average (Pain + PPI)

Average (All)

Average (Pain)

\*Pain-related product licenses highlighted in gray.

13.5% 10.0%

Median (All) 25th Percentile (All) 75th Percentile (All)

19.4%

18.3%

16.0%

# Additional Comparables With Royalty Rate After Loss of Exclusivity (LOE)

Date	Licensor	Licensee	Drug (Indication)	Minimum Royalty While Exclusive	Maximum Royalty While Exclusive	Maximum Royalty Royalty After Loss While of Exclusive Exclusivity	Reduction
3/31/2008	Cell Genesys	Takeda Pharmaceutical Co	GVAX (prostate cancer immunotherapy)	20.0%	20.0%	2%	75.0%
12/22/2005	Atherogenics, Inc.	IPR Pharma and AstraZeneca	Compound AGI-1067 (atherosclerosis)	12.0%	22.5%	3.0-5.6%	75.0%
9/5/2007	BioDelivery Science International	Meda AB	Fentanyl (opioid pain treatment)	28.0%	28.0%	20%	28.6%
11/30/2007	Santarus, Inc.	Glaxo Group Limited	Zegerid® (proton pump inhibitor/"PPI")	17.5%	27.5%	12.5–17.5%	33.3%
4/11/2000	MGI Pharma, Inc., Merck KGaA, E. Merck	CIBA Vision AG	Pilocarpine hydrochloride (treatment for post-radiation xerostomia and xerostomia)	20.0%	20.0%	%8	%0.09
1/12/2006	Avigen, Inc.	SDI Diagnostics Intl Ltd.	Tolperisone (treatment for acute pain)	10.0%	15.0%	6.7–10%	33.3%
10/29/2003	Orphan Medical, Inc.	Celltech Pharmaceuticals, Ltd.	Xyrem (treatment for narcolepsy)	15.0%	15.0%	3–7%	%2'99
7/23/2003	EpiCept Pharma	Adolor Corp.	LidoPAIN® SP (a topical pain treatment)	10.0%	12.0%	2–6%	20.0%
3/31/2002	Scios Inc.	Glaxo Group Ltd.	Intravenous formulation of Natrecor B- type natriuretic peptide (treatment for heart conditions)	8.0%	12.0%	2–3%	75.0%
8/13/1998	Access Pharmaceuticals, Strakan Ltd.	Strakan Ltd.	Topical product containing amlexanox (aphthous ulcers)	10.0%	10.0%	4%	%0.09

### **Evaluation of OxyContin Royalties Paid by IACs Based on** Profit Split Analysis (Method 2)

Method 2 uses the fact that all IP licenses effectively result in a profit to measure profit splits in 3rd party licenses because of lack of data. reasonableness of PPLP's agreements. However, it is often difficult agreements and their respective profit splits to assess the split between licensor and licensee. We use comparable

third-party pharmaceutical licenses are in the range of around 40–60%. profitability and royalties found reported royalty rates represent 53% of licensee's operating profit. Additionally, effective profit splits in PPLP's effective royalty, in evaluating deal terms with third parties for both in-licensing and out-licensing. The effective profit share to the PPLP also evaluates share of profits, and the corresponding licensor often varies by product, but a 2012 KPMG Report on

### Market Royalty Rate for Pre-2013 and ADF OxyContin Based on Profit Split Between Licensor and Licensee (Method 2)

Profit share to licensor can vary by product

2012 KPMG report on profitability and royalties found reported royalty rates represent 53% of licensee's operating profit PPLP and IAC third-party licenses as comparables generally show following profit shares:

Branded drugs: 43% to 55% of operating profits

Generic drugs: 50% to 60% of operating profits

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### Comparables: PPLP's 3rd-Party Licenses for Branded **Drugs**

Date	Licensor	Licensee	Description	Phase	Profit share
August 2015		PPLP	Collaboration on development, promotion, and commercialization for Lemborexant (insomnia)	~Phase III	For Purdue sole territory: 15% of gross profits and 50% of other revenues. For co-promotion countries: 50% of operating profits. For distributor only countries: 55% of operating profits
June 2015		PPLP	Development, promotion, and commercialization of Dalcetrapib (cholesterol)	~Phase II	50% of operating profit
December 2016		PPLP	Collaboration on distribution and promotion of Symproic (opioid induced constipation)	~Phase III	~43% of operating profit

Note: The profit share for the Shionogi agreement was calculated assuming sales over 15 years and a 9% discount rate.

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#### Comparables: PPLP and Mundipharma's 3rd-Party Licenses for Generics or Biosimiliars

Date	Licensor	Licensee	Description	Phase	Profit share
April 2002		Rhodes Tech	Joint venture to research, develop, commercialize, and market generic Marinol (nausea and vomiting related to cancer medication)	~Phase III	~Phase III 50%
November 2016		Rhodes Pharma	. <u>:-`</u>	~Ready for approval	50% of operating profits
2017			Invokana distribution agreement	~Ready for approval	40% of incremental NPV

August 2015	dldd	August 2015 PPLP ADF opioid with Vicodin trademark ~Phase III	~Phase III	Capped at 10% of gross profits on AG sales (according to proposed terms)
April 2017	PPLP	Butrans AG supply agreement	Approved	60% of gross profits
Early 2020	Rhodes Pharma	Generic Migranal (migraine), generic Perforomist (asthma), and ~Phase III profits generic Brovana (COPD)	~Phase III	40%–50% of gross profits

Note: The profit share for the Janssen agreement was calculated as Janssen incremental NPV divided by total incremental NPV.

# Project Echo, \_\_\_\_\_ Lemborexant Agreement: 50% Profit Share, Excluding Upfront, R&D, and Milestone Payments

Overview of deal term	erms for global licensing deal
Term	Amount
Upfront	\$20M
R&D investment	Purdue to pay first \$40M and remainder to be split equally
Milestones	$40M$ DEA scheduling of IV or better (Schedule IV expected) $^{ m 1}$
Profit share	Besides above payments, profit to be split equally
Other terms	
Sales	to book sales
S900	to manufacture 80% of the products, with max. COGS at 7% net sales
Financial summary	
Cost to trial 304 interim	\$53M
Cost to trial 304 end	\$85M
Total cost to Purdue	\$189M

Source: 3.1.15 Project Echo BDC Deck 07.14.2015 vFINAL, page 16.

Appendix A

# Lemborexant Agreement: Gross Profit Split of 15% and Net Profit Split of 50–55%

/PPLP depends on the status of each country as "sole territory," "co-promotion," and "distributor country." The profit split for

(a) a royalty equal to fifteen percent (15%) of Gross Profit Purdue Sole Territory. Subject to Section 8.5, with respect to each Purdue Sole Country, during each Calendar Quarter of the Payment Term for such Purdue Sole Country, Purdue shall pay to

percent (50%) of the Other Revenue, if any, with respect to such Purdue Sole Country during such Calendar Quarter, in each case subject to reduction in accordance with Section 8.3.3(b). in such Purdue Sole Country during such Calendar Quarter, and (b) an amount equal to fifty

(50%) of all Net Losses, as applicable, with respect to such Co-Promotion Country during the Subject to Section 8.5, with respect to each Co-Promotion Country each Party shall receive fifty percent (50%) of all Net Profits, and shall bear fifty percent Payment Term for such Co-Promotion Country.

Profits, and shall bear forty-five percent (45%) of all Net Losses, as applicable, with respect Profits, and shall bear fifty-five percent (55%) of all Net Losses, as applicable, with respect to Non-Lead Party for such Distributor Country shall receive forty-five percent (45%) of all Net Subject to Section 8.5, with respect to each Distributor Country, (i) the such Distributor Country during the Payment Term for such Distributor Country, and (ii) the Lead Party for such Distributor Country shall receive fifty-five percent (55%) of all Net to such Distributor Country during the Payment Term for such Distributor Country. Note: A Co-Promotion Country becomes a Distributor Country if the lead party of that country enters into a distribution agreement with a third-party distributor. Source: \_\_\_\_ - Purdue - Collaboration Agreement (Execution) (2015-08-28), pages 56-58.

### Lemborexant Agreement: Definition of Net Profit

costs related to marketing, manufacturing, and distributing the product as Net Profit is defined as net sales less allowable expenses, which include well as product liability insurance and medical and regulatory activities.

Country for a period, the sum of (i) Net Sales for such country for such period less Allowable Section 1.144 "Net Profits" and, with correlative meaning, "Net Losses," shall mean Expenses for such country for such period, plus (ii) Other Revenue for such country for such Sole Country or Purdue Sole Country or Distributor (a) with respect to a Co-Promotion Country for a period, Net Sales for such Co-Promotion Country for such period less Allowable Expenses for such Co-Promotion Country for such period, and (b) with respect to an

with respect to such period and to the extent not already treated as a deduction in determining country in the Co-Promotion Territory, the Distributor Territory, the Purdue Sole Territory or Sole Territory, as applicable, the following expenses that are incurred by a Party or attributable or reasonably allocable to the Commercialization of the Product in such country Section 1.15 "Allowable Expenses" shall mean, with respect to any period for any its Affiliates during the Term (except as set forth in Section 1.15.3) that are directly Net Sales for such country for such period:

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Source: PPLP004412078, at -093.

# Dalcor Dalcetrapib Agreement: Operating Profit Share of

New molecule and mechanism of action addressing CV residual risk with excellent safety Targeted, novel cardiovascular therapeutic with strong efficacy in estimated 20% of ACS Prelaunch US R&D costs from signing to NDA approval ≈ \$350M (assumed in model) Total cost to next decision point  $\approx $250M$  (assuming by completing 50% of Phase 3 Peak net sales in the U.S. at \$2.2B (Base Case). Ex-USA peak net sales at [TBD] Innovative product that brings value to payers for a clearly defined population WW IRR =31% (Base) Dalcetrapib is entering Phase 3 with a 5-year 5,000-patient clinical program. Years from signing to cumulative positive cash flows ≈ 10 years \$75M upfront for a Phase 3-ready innovative CV asset. LOE 2034 – 13 years of exclusivity post launch is likely. R&D share 50/50 and operating profit share 50/50 eNPV = \$780M (Base) profile – already tested in ≈10,000 patients. patient population (i.e. with AA genotype). PTRS from signing to NDA approval ≈ 59% US Launch estimated in 2022. NPV = \$1,460M (Base) program + upfront) Financial Return (WW) **Commercial Potential** Strategic Alignment R&D and De-Risking Deal Terms

### Symproic Agreement: 35% Profit Share for Years 1 to 5, 50% Profit Share for Years 6+

First Profit Share Period. For the period commencing upon the Effective Date and ending on December 31st of the fifth (5th) full Calendar Year after the First Commercial Sale is October 1, 2017) (the "First Profit Share Period"), Purdue shall pay to Commercial Sale of the Product in the Territory (e.g., December 31, 2022 if the First hirty-five percent (35%) of any positive Net Profit.

Second Profit Share Period. For the period commencing on the end of the First Profit Share Period and continuing for the duration of the Term, Purdue shall pay to ifty percent (50%) of any positive Net Profit.

, plus 'Net Profit" means Net Sales minus the sum of Operating Costs, Purdue COGS and pursuant to Section 9.2 (Royalty to Authorized Generic Proceeds. royalty payments paid to

### Symproic Distribution Agreement: Effective Profit Share of ~43%

The effective profit split is calculated assuming sales continue for 15 years and uses a 9% discount rate.

- First Profit Share Period. For the period commencing upon the Effective Date and ending on December 31st of the fifth (5th) full Calendar Year after the First Commercial Sale of the Product in the Territory (e.g., December 31, 2022 if the First Commercial Sale is October 1, 2017) (the "First Profit Share Period"), Purdue shall pay to hirty-five percent (35%) of any positive Net Profit.
- Second Profit Share Period. For the period commencing on the end of the First Profit Share Period and continuing for the duration of the Term, Purdue shall pay to ifty percent (50%) of any positive Net Profit

-PPLP Distribution and Promotion Collaboration Agreemement, page 42. Effective profit share calculated based on 35% profit share for years 1-5 and 50% profit share for years 6-15 on a present value basis using a discount rate of 9%.

## PAR Dronabinol Agreement: Profit Share of 50%

### 21. Licensing and Distribution Agreement with PAR Pharmaceutical, Inc

venture, SVC Pharma LP (SVC), to research, develop, commercialize and market pharmaceutical preparations for human therapy. Under the terms of this arrangement, the parties shared equally between Rhodes Technologies and PAR. PAR's net investment in SVC was During April 2002, Rhodes Technologies and PAR Pharmaceutical, Inc. (PAR) created a joint agreed to capitalize the joint venture with equal contributions and all profits or losses are to be \$0.9 million and \$1.3 million as of December 31, 2015 and 2014, respectively.

### Agreement for Paroxetine ER: Profit Share of

20%

percent (50%) of the Net Profit payable within forty-live (45) days after the end of each Calendar Quarter (the "Profit Share Payment"); provided, that it in any Calendar Quarter. Net Profit with respect to Product is a negative number (the "Negative Amount"), then such Negative Amount will be deducted against future Net Profits until such Negative Amount shall a payment equal to filty Profit Share Payment. For the Term. RP will pay have been fully deducted. 2.5

"Net Profit" shall mean, for any Calendar Quarter. Net Sales of each of the Products in the Territory less the following: 1.37

- (a) RP Finished Dosage Acquisition Costs;
- RP Commercial Expenses:

3

per customer specifications, including, but not limited to, packaging and or RP to supply the Product as any other conversion costs incurred by testing costs. 9

and Rhodes Collaboration and License Agreement, pages 4 and 9. Assumed to be operating profit as costs include finished dosage costs, commercial expenses, and other conversion costs.

### Janssen Distribution Agreement for Invokana

market Invokana® and Vokanamet® for Type 2 Diabetes in Europe and co-promotion in Spain. Janssen is responsible for manufacturing and certain regulatory activities. Mundipharma seeks approval to execute an exclusive distribution agreement to

Opportunity Summary:	mary:
Mundipharma seek	Mundipharma seeks approval to enter an exclusive distribution
agreement for the	agreement for the European Economic Area + Switzerland
	Overview
Company Description	• J&J acquired the rights to canagliflozin from Mitsubishi Tanabe Pharma ex- Japan in 2007
Product Description	• An oral, once daily tablet, Invokana® (canagliflozin) was the first SGLT-2i inhibitor on the market, approved March 2013 in the USA, with global sales ~\$1.4BN in 2016, ~58% of the global SGLT-2i market. Vokanamet®, the canagliflozin/metformin combination, is also widely available • Invokana is launched in over 75 countries worldwide
Target Indication	• Type 2 Diabetes Mellitus (T2DM)
Territory	• European Economic Area + Switzerland (32 Countries)
Pricing	• EU average/day: 100mg €1.18, 300mg €1.52, (canagliflozin/metformin) 50mg/1g €1.25, 150mg/1g €1.61
Development Stage	• Marketed; Phase 3 in T2D patients with diabetic nephropathy
Deal Structure	<ul> <li>Exclusive distribution: Mundipharma to book top line revenue; Share of sales above the baseline; Term 2017-2028 (with extension to 2032)</li> <li>Separate co-promotion with Janssen for the first 5 years in Spain (reverts to Mundipharma 2023)</li> </ul>
Intellectual Property	<ul> <li>Estimated product patent expiry: November 2028</li> </ul>

Source: Mundipharma presentation to Business Development Committee (June 2017), page 3.

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## Janssen Invokana Agreement: The Profit Share to the Licensor (Janssen) is Approx. 40%

		De	sal Perfo	ormance	Deal Performance Metrics (2017-28)	2017-28)	4		Ĭ
Scenario	Upfront	Upfront AUC (EM)	Peak net sales (CM)	Net Sales AUC (CM)	NPV (CM) Fully Allocated	IRR (%) fully allocated	Incr. NPV I	Janssen Incr. NPV (EM)	Share of Revenue above baseline (%)
Initial Launch Countries*	00	151	181	1,585	53	19	145	89	49%
Total Europe*	00	241	Se2 262	2,149	92	20	189	75	46%

Profit Split (millions of Euros)	Amount
Incremental NPV	189
Janssen NPV 75	75
Profit Share	
Janssen (Licensor Share) 40%	40%
Mundipharma (Licensee Share) 60%	%09

Source: Mundipharma presentation to Business Development Committee (June 2017), page 13.

#### 2

# Abbvie Vicodin Agreement (Proposed): Royalty Capped at 15% for Brand, Profit Share Capped at 10% for Generics

Year 1: 15% of the aggregate of net sales of	brand and gross profit authorized generic;	minimum of \$2 million to be paid at the end of the first quarter of commercial	launch (Q1'18) Thereafter: Products with	Vicodin mark: Tiered royalty on aggregate of net	sales of brand and gross	profit of authorized generic (i.e., remain the same as	previously approved)	Other products (as defined	in the agreement) launched	Royalty capped at 10%
•			•					•		
Tiered royalty on aggregate of net sales of	brand and gross profit of authorized generic:	<ul> <li>10% up to \$50 million</li> <li>20% of next</li> </ul>	<ul> <li>\$100 million</li> <li>25% of subsequent</li> </ul>	\$100 million and 30% of amounts	thereafter					
Royalty Payments										

Note: The second column denotes the terms of the original deal (dated March 2015). The third column denotes the updated terms. Source: PPLP004417483, at -531-532.

### Sandoz Butrans Agreement: Gross Profit Share of 60% and COGS Plus 10%

be cost-of-goods plus 10%, and (ii) a royalty payment ("Royalty") equal to derived from the Hexal Patent (as defined below) that issues and is listed in the Orange Book, from the date of issuance, Sandoz will pay Purdue a reduced Royalty equal to 25% of the gross profit of the Supplied Product payment, which, for the Supply Year beginning September 29, 2017, will 60% of the gross profit of the Supplied Product (gross profit to mean net sales less the cost of goods payment). If Purdue obtains a U.S. patent Sandoz will pay Purdue (i) a cost of goods Cost of Goods, Royalty. sold thereafter; ┪

### Sandoz Butrans Agreement: Hexal Patent

comprising buprenorphine (active ingredient of Butrans). Sandoz will assign the patent application to PPLP. Sandoz will pay PPLP 25% of gross profits (reduced from 60%) if the patent application results in a patent for PPLP. The Hexal Patent concerns a new transdermal therapeutic system

other prosecution work for Sandoz and Hexal. Purdue will grant Sandoz a a continuation patent application for Sandoz to prosecute the Hexal Patent including any patents arising therefrom (the "Hexal Patent"). Sandoz and companies a covenant not to sue with respect to all non-U.S. patents and Orange Book. If Purdue has not obtained an Orange Book listable patent the current law firm(s) prosecuting the Hexal Patent Application limited to by September 29, 2019, then at Sandoz's written request, Purdue will file non-transferable covenant not to sue with respect to the Hexal Patent for Hexal and their associated companies will provide (i) a conflict waiver to Purdue's use of such counsel for further prosecution of the Hexal Patent Patent, including without limitation, access to inventors. Purdue will not sales made by Sandoz pursuant to the Supply Agreement. Sandoz and Products. Purdue will use commercially reasonable efforts to prosecute patent applications and related U.S. patents for Purdue to make, have contend that such prosecution work disqualifies the firm(s) from doing ts associated companies will grant Purdue, LTS, and their associated made, use, offer for sale, sell and otherwise commercialize Butrans $^{\odot}$ Application, at its sole discretion, taking into account comments from Hexal Patent Application Assignment. Sandoz will assign to Purdue the Hexal Patent Application to obtain a patent that is listable in the Application, and (ii) any assistance required to prosecute the Hexal Patent Application No. 13/885,958 (the "Hexal Patent Application"), Purdue in good faith;

Source: PPLP004417653, at -691. U.S. Patent & Trademark Office, Patent Application Full Text and Image Database.

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#### Slayback Agreement: Gross Profit Share of 40-50% Varying by Product

With respect to the Formoterol Fumarate Product and the Aformoterol Tartrate Product, the Profit Share Payment due to Slayback hereunder shall equal forts percent (40%) of Rhodes Net Profit on such Product sales.

<u>a</u>

such Dihydroergotamine Mesylate Product sales, provided however, that if at the With respect to the Dihydroergotamine Mesylate Product, the Profit Share Payment due to Slayback hereunder shall equal fifty percent (50%) of Rhodes Net Profit on Dihydroergotamine Mesylate Product is the sole FDA-approved ANDA referencing the Dihydroergotamine Mesylate Reference Listed Drug on the market, in Net Profits as follows. Starting with the first Profit Share payment for the then Rhodes shall pay Slayback an additional three million US dollars (\$3 million) of Launch of the Dihydroergotamine Mesylate Product, 9

(a) all amounts, including freight costs paid by Rhodes to the CMO as the supply Rhodes to the CMO, and (b) distribution costs specifically allocable to the Product(s) and incurred by Rhodes for the sale of the Products. Net Profits will be determined in accordance with Rhodes' US GAAP accounting policies, procedures price for the Product, as well as manufacturing process validation costs paid by "Net Profits" in relation to a Product means Rhodes' Net Sales of the Product less: and/or conventions applied on a consistent basis.

### OxyContin Royalties Are Below Market Rates Based on Profit Split Analysis (Method 2)

- than 40%, i.e., below the share expected in arm's-length licenses IAC OxyContin P&L data show that profit share to PPLP was less
- December 2015 IAC document:
- This document provides forecast of ex-U.S. OxyContin profits
- Royalties paid to PPLP equal ~22% of forecast ex-U.S. OxyContin (pre-royalty) profits for 2016E-2018E
- IAC P&L data:
- These P&L data provided a more granular view of ex-U.S. financial performance, as they are country/region specific
- Royalties paid to PPLP were ~33% of ex-U.S. OxyContin profits during 2008-2016

# PPLP's OxyContin Royalties Equal 22% of IAC Forecast of Ex-U.S. OxyContin Profits for 2016E-2018E

\$ in millions	2016E	2017E	2018E	2016-2018E
	\$276	\$270	\$278	\$823
True Business Contribution ("TBC")	\$158	\$152	\$161	\$471
G&A and Marketed Product Support Cost Allocation	\$34	\$33	\$33	\$100
TBC after Cost Allocation	\$124	\$118	\$128	\$370
IAC Royalty Rate	10%	10%	10%	10%
Estimated Royalty Amount	\$27	\$27	\$28	\$82
Royalty Share of Estimated Profits (%)	22%	23%	22%	22%

Source: Global Year End Review (December 2015), 46, 50, 53, 56. PPLPUCC000736187. Purdue Pharma L.P. Corporate Structure Detail, April 22,

Note: The cost allocation is based on revenue. R&D costs and G&A charged to Prod & U.S. legal costs were not allocated as these costs are assumed not to be related to ex-U.S. OxyContin sales. This calculation is based on IAC sales. The profit share for 2016–2018E with the weighted average royalty is 24%.

rate including Japan (sales to third-party

## Based on IAC P&L, PPLP's OxyContin Royalties Equal 33% of Ex-U.S. OxyContin Profits for 2008–2016

\$ in millions	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008- 2016
Ex-U.S. IAC OxyContin net sales	\$490		\$536	\$579	\$509	\$416	\$392	\$327	\$310	\$4,051
Gross Profit	\$279		\$299	\$310	\$284	\$230	\$215	\$180	\$161	\$2,234
Product Contribution	\$188		\$222	\$243	\$194	\$127	\$117	\$98	\$72	\$1,463
IAC Royalties to PPLP	\$63	29\$	\$74	879	\$71	\$36	\$37	\$31	\$28	\$485
Royalty Share (%) of Product Contribution	33%	33%	33%	33%	36%	29%	31%	31%	39%	33%

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# Impact of Market Royalties on PPLP Share of IAC Estimated and Actual Profits: 25%/12.5% Pre/Post LOE

\$ in millions	2008–2016 Actual	2016–2018 Estimates
Ex-U.S. IAC OxyContin Net Sales	\$4,051	\$823
Gross Profit	\$2,234	
Product Contribution \$1,463	\$1,463	\$370
Market IAC Royalty Rate with R&D Adj. 22%	22%	20%
Market IAC Royalty Amount \$940 \$167	\$940	\$167
Royalty Share (%) of Product Contribution	63%	45%

Note: R&D adjustment takes into account certain R&D payments by PPLP to Mundipharma that would typically be the licensee's responsibility in arm's-Source: IAC Product P&L – Total OxyContin Incl AG (IACS 0001705300).; Global Year End Review (December 2015), PPLPUCC000736187 length transactions. The above analysis assumes 50% of the relevant R&D expenditures were for OxyContin and would typically be borne by Mundipharma. The R&D as a percentage of sales is added to each year's market rate to get the final R&D adjusted royalty rate for that year.

## Estimate of Arm's-Length/Market Royalty Rates

The analysis is based on following royalty rates:

- 25% royalty rate for ADF and non-ADF during exclusivity period (pre-2013)
- 25% royalty rate is generally between 50th and 75th percentile of comparables
- Consistent with rates observed for large, highly profitable pain products
- Consistent with regression results
- 12.5% royalty rate for non-ADF during post-exclusivity period (post-2013)
- 12.5% is near the average for the pain (plus PPI) comparables
- Consistent with Mundipharma third-party licenses for ADF (OTR) and Targin after first 10 years; slightly higher than for non-ADF post-LOE

corresponds with PPLP's payment to MRL for OxyContin development, which is assumed to be 50% of \$81MM. At arm's-length, licensee would be expected to The royalty rate is adjusted for PPLP's funding of ~\$40MM to Mundipharma for adjustment increases royalty rates by 1.5% on average 2008 - Sept. 15, 2019. local development and regulatory costs for OxyContin. The R&D adjustment bear local development and regulatory costs after license is entered. This

The estimated market royalty rate is consistent with profit split range from market royalty rates.

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# Additional IAC Royalty Payments Using Market Royalty Rate of 25% During Exclusivity and 12.5% Post LOE

\$ in millions	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Sep. 2019	Total
Royalty Received	\$71	\$76	\$85	\$91	\$84	\$47	\$46	\$38	\$36	\$15	\$15	\$11	\$615
Japan Royalties	6\$	6\$	\$11	\$12	\$13	\$10	6\$	2\$	88	\$0	\$4	\$3	96\$
Royalties Excluding Japan	\$63	\$67	\$74	\$79	\$71	\$36	\$37	\$31	\$28	\$15	\$11	\$7	\$519
Royalty Rate	13.0%	12.9%	12.9%	12.9%	12.8%	10.0%	10.1%	%6.6	%6.6	14.9%	14.9%	14.9%	
Market Royalty Rate	25.0% 25.0%	25.0%	25.0%	25.0%	25.0%	17.0%	17.1%	16.7%	16.7%	25.0%	25.0%	25.0%	
R&D Adjustment	1.6%	%8:0	0.5%	0.3%	0.4%	0.5%	%6:0	1.0%	1.8%	5.2%	3.8%	1.1%	
Market Royalty Rate with R&D	26.6%	25.8%	25.5%	25.3%	25.4%	17.5%	18.0%	17.8%	18.5%	30.2%	28.8%	26.1%	•
Royalty Rate Adjustment Factor	2.0	2.0	2.0	2.0	2.0	<del>1</del> .8	1.8	1.8	1.9	2.0	1.9	1.8	,
Market Rate Royalty	\$128	\$134	\$145	\$156	\$140	\$64	\$65	\$55	\$52	\$31	\$22	\$13	\$1,005
Additional Royalty	99\$	\$67	\$72	\$76	69\$	\$27	\$29	\$25	\$24	\$16	\$11	9\$	\$486

Note: Calculations exclude royalties for Japan as that is covered under a third-party license agreement with \_\_\_\_\_\_ The annual R&D adjustment corresponds with PPLP's payment to MRL for OxyContin development, assumed to be 50% of \$81MM. Market royalty rate includes the adjustment for 50% of R&D payment PPLP made to MRL (i.e., \$40MM).

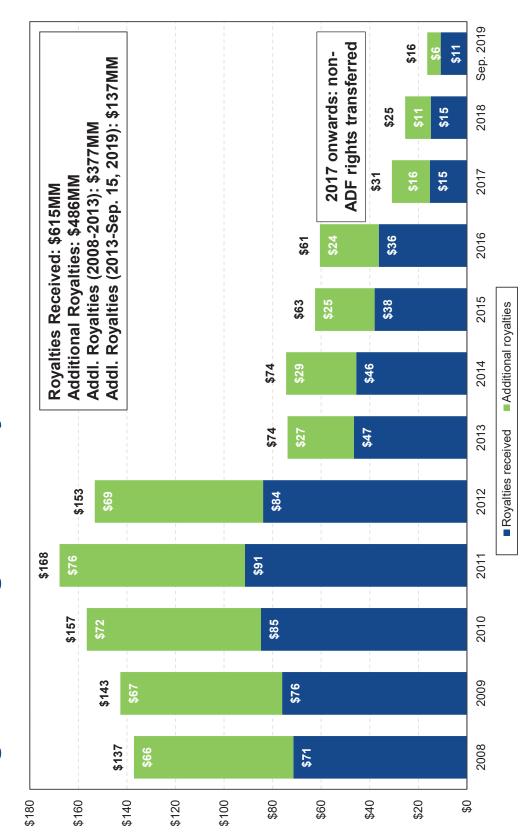
### 75

### Sensitivity Analysis: Changes in PPLP OxyContin Royalty Income for Alternative ADF and non-ADF Royalty Rates

		ADI	ADF and pre-2013 Exclusivity Royalty Rate (%)	3 Exclusivity	Royalty Rate	(%)
		10.0%	15.0%	20.0%	25.0%	30.0%
9js9	%0'2	92\$-	96\$	\$268	\$440	\$611
। १३।६४	8.5%	-\$63	\$109	\$281	\$452	\$624
(%)	10.0%	-\$50	\$122	\$293	\$465	\$637
IQA-	12.5%	-\$29	\$143	\$315	\$486	\$658
uoN	15.0%	-\$7	\$164	\$336	\$508	\$679

development, which is assumed to be 50% of \$81MM. Market royalty rate includes the adjustment The annual R&D adjustment corresponds with PPLP's payment to MRL for OxyContin Calculations exclude royalties for Japan, covered under third-party license agreement with for 50% of R&D payments PPLP made to MRL (i.e., \$40MM).

### PPLP Actual vs. Market OxyContin Royalty Revenues Using 25% During Exclusivity and 12.5% Post-LOE



Source: Intercompany and Non-Cash Transfers Analysis (Alix Partners, May 28, 2020), 194. Non-ADF royalties of \$21.6MM (2017) and \$14MM (2018) before adjustment.

### Market Royalty Rates of 25% and 12.5% Assume That PPLP Owns All Relevant OxyContin IP and Know-How

PPLP developed OxyContin to replace MS Contin revenues after patent expiration

 Foreign IACs's contributions to developing or commercializing OxyContin in the U.S. appears to be minimal If Mundipharma contributed significantly to the development of OxyContin, it may reduce the estimated market royalty rate.

### ç

### Other Considerations That Could Affect the Royalty Rate Analysis

There are several considerations that could impact the market royalty rate upwards or downwards. These include:

- Additional comparables could result in a higher or lower royalty
- Information about the profitability of the comparables could impact the royalty rate (comparables with similar revenue and profits as OxyContin would receive greater weight in the analysis)
- actual OxyContin profits are different than forecasted profits at the Implied profit share and royalty rates could be different if IACs' time the license was entered into

### Potential Strategic Reasons for Current OxyContin **Licensing Arrangement**

- Out-licensing OxyContin by PPLP to related parties may offer additional flexibility unavailable with a third party license
- PPLP and IACs were ultimately owned and managed by Sackler family
- supply chains, etc.) and associated tangible and intangible benefits Allowed sharing of resources (management know-how, marketing,
- Allowed control of how products were sold in foreign markets (e.g., pricing, discounts, rebates, etc.)
- These benefits often cannot be realized with third-parties unless it is via a joint venture
- Availability of generic alternatives for non-ADF OxyContin in ex-U.S. markets after LOE introduces additional complexity in determining optimal royalty rate for IACs
- Other factors can also impact royalty rates
- Value of brand equity, relative bargaining position, relative ease or difficulty of local regulatory/compliance processes, etc.

Betadine and Senokot (1L)

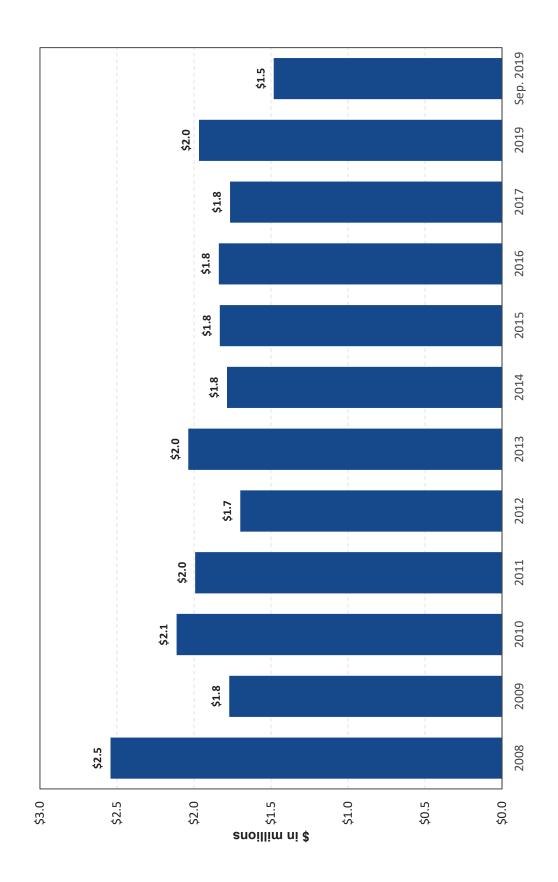
### PPLP Paid PRA Inc. Royalties for Rights to Manufacture and Sell Betadine and Senokot, and to Use Trademarks

entered into agreements with PRA Inc. for the right to manufacture and sell Betadine and Senokot, and to use their trademarks, for a On November 29, 2006, Avrio Health L.P. (a subsidiary of PPLP) 5% royalty rate.

15, 2019 on behalf of Avrio Health L.P. The annual royalty payments PPLP paid PRA Inc. \$22.8MM in royalties from 2008 to September averaged \$1.9MM.

licensee shows that PPLP was not disadvantaged under the relatedparty license agreements relative to benchmarks from arm's-length An analysis of the effective profit split between the licensor and agreements.

# **PPLP** paid \$22.8MM from 2008 to September 15, 2019



Source: Intercompany and Non-Cash Transfers Analysis (Alix Partners, May 28, 2020), 173.

## **Background Regarding Betadine and Senokot**

Purdue Frederick Company was the main operating company of the Senokot trademarks from Purdue Frederick Company in April 2003 Purdue business until the formation of PPLP in 1991. While PPLP products and provided administrative and R&D support to PPLP. Products L.P.), PPLP obtained the right to use the Betadine and Through its subsidiary Avrio Health L.P. (then known as Purdue was developing, Purdue Frederick Company promoted PPLP's

Senokot rights to PRA Inc. Under this agreement, Avrio Health L.P. In 2006, Purdue Frederick Company assigned its Betadine and pays a 5% royalty rate to PRA Inc.

### **Third-Party License**

paid royalties equal to 10% of net U.S. sales and 5% of net sales in (third-party) a license to manufacture, sell, and distribute Canada, the rest of the Americas, U.K., and Ireland. In 1999, Purdue Frederick Company granted Betadine ophthalmic prep solution. In return, [

royalties for sales of Betadine ophthalmic. These royalty payments were subsequently transferred to PPLP and are separate from the Pursuant to the 1999 agreement, part paid PRA Inc. \$2.4MM in payment by PPLP of \$22.8MM.

November 29, 2006, as noted in a April 26, 2007 letter from Purdue The license rights were transferred to PRA Inc. effective Frederick to

### 2006 Betadine License Agreement Between PPLP and PRA Inc.

with PRA Inc. for Betadine that contained a royalty rate of 5% of net included the rights to use copyrights and know-how and trademark. sales for the commercial life of the product. The agreement was for the rights to manufacture, use, and sell Betadine in the U.S. It also The licensee is Purdue Products L.P., a subsidiary of PPLP, which On November 29, 2006, PPLP entered into a license agreement later became Avrio Health L.P.

transferred by Purdue Frederick Company to PRA Inc. on November licensee and Purdue Frederick Company as the licensor. It was This license started in 2003 with Purdue Products L.P. as the 29, 2006.

### 2006 Senokot License Agreement Between PPLP and PRA Inc.

sales for the commercial life of the product. The agreement was for with PRA Inc. for Senokot that contained a royalty rate of 5% of net the rights to manufacture, use, and sell Senokot in the U.S., and it trademark. The licensee is Purdue Products L.P., a subsidiary of On November 29, 2006, PPLP entered into a license agreement also included the rights to use copyrights and know-how and PPLP, which later became Avrio Health L.P.

transferred by Purdue Frederick Company to PRA Inc. on November licensee and Purdue Frederick Company as the licensor. It was This license started in 2003 with Purdue Products L.P. as the 29, 2006.

### Methodology to Evaluate the Reasonableness of the Royalty Rate

Licensing agreement terms are based on the level of contribution by the licensor and the licensee. The terms are usually stated as royalty rate(s) as a percentage of sales and other payments (upfront, regulatory milestones, and sales milestones).

for the same royalty rate (e.g., 20%) varies based on the profitability comparing the effective royalty rate to the profit margin. Profit split Effective royalty rates (sum of royalties and other payments as a percentage of net sales) can be converted into profit splits by of the product.

- Operating profit: 30% → licensor profit share of 66.7%
- Operating profit: 50% → licensor profit share of 40%
- Operating profit: 60% → licensor profit share of 33.3%

We can infer the reasonability of royalty rates based on profit splits between the licensor and licensee.

### Betadine Profit Share Analysis Shows that PPLP was Not **Disadvantaged**

about 14-15% of the profit. Therefore, PPLP was not disadvantaged Based on our analysis, paying a 5% royalty rate on net sales leaves 85-86% of the profit with PPLP; while PRA Inc. (licensor) receives a result of the 5% royalty rate, given the profit split.

( ; ; ; ;	Beta	Betadine
n	2016	2017E
Net Sales \$14 \$12	\$14	\$12
Product Contribution \$5 \$4	\$5	\$4
Product Contribution (%)	36%	33%

\$0.6

\$0.7

15%

14%

Royalty Share of Product Contribution

Royalty at 5%

Source: Mundipharma, Consumer Health Products (CHP) North America – US and Canada (December 5-6, 2017), page 13.

Source: Mundipharma, Consumer Health Products (CHP) North America – US and Canada (December 5-6, 2017), page 14.

### Senokot Profit Share Analysis Shows that PPLP was not **Disadvantaged**

about 12-13% of the profit. Therefore, PPLP was not disadvantaged Based on our analysis, paying a 5% royalty rate on net sales leaves 87-88% of the profit with PPLP; while PRA Inc. (licensor) receives a result of the 5% royalty rate, given the profit split. as

Net Sales         \$21         \$19           Product Contribution         \$8         \$8           Product Contribution (%)         38%         42%	· · · · · · · · · · · · · · · · · · ·	Sen	Senokot
Net Sales         \$21         \$19           Product Contribution (%)         \$8         \$8           Product Contribution (%)         38%         42%	n	2016	2017E
Product Contribution\$8\$8Product Contribution (%)38%42%	Net Sales	\$21	\$19
Product Contribution (%) 38% 42%	Product Contribution	\$8	\$8
	Product Contribution (%)	38%	42%

Royalty at 5%	\$1.1	\$1.0
Royalty Share of Product Contribution	13%	12%

MS Contin (1K)

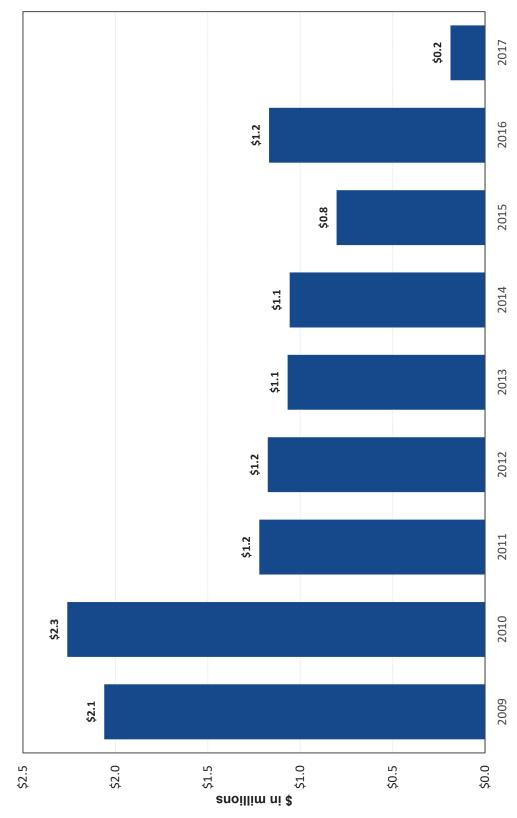
### PPLP Not Disadvantaged by MS Contin Royalty Payments to Mundipharma A.G.

In 2008, PPLP was granted the license to manufacture, use and sell, as from Mundipharma A.G. This agreement mirrored prior agreements for a 15% profit share on authorized generic sales and a 10% royalty rate J.S., on an initial term of 8 years with a possible three-year extension well as the know-how, trademark, and patents for MS Contin in the on MS Contin brand sales.

to April 28, 2017 per this agreement. These rights were later transferred to Mundipharma A.G. PPLP paid Mundipharma A.G. \$11MM from 2009 PRA L.P. paid royalty and profit share payments in 2008 of \$2.1 million parent Coventry effective May 1, 2017 for no consideration, and the to PRA L.P., which contributed the assets to Rhodes Pharma's then payments were terminated.

Based on an analysis of the effective profit split between the licensor and licensee, PPLP was not disadvantaged under the related-party license for MS Contin relative to benchmarks from arm's-length agreements.

### PPLP Paid Mundipharma \$11.2MM in MS Contin Royalties from 2009 to 2017



Source: Intercompany and Non-Cash Transfers Analysis (Alix Partners, May 28, 2020), 32, 165. In 2008, PRA LP paid \$2.1 million in royalties and profit share payments to Mundipharma A.G.

### **MS Contin Background**

MS (morphine sulfate) Contin was introduced in the U.S. in 1984 by Purdue Frederick Company. The FDA required an Investigational extended release technology for MS Contin was in-licensed by New Drug for MS Contin in 1985 and approved it in 1987. The PPLP from Napp Pharmaceuticals, a foreign IAC. PPLP obtained MS Contin rights from Mundipharma through various license agreements in 1992, 1997, 1998, and 2008. These agreements also involve parent companies of PPLP.

effective May 1, 2017 (agreement dated Oct. 1, 2016)<sup>.</sup> This transfer PPLP transferred its rights to sell MS Contin to Rhodes Pharma was completed through the parent entities of PPLP to Rhodes

Purdue Pharma L.P., and PLP Associates Holdings L.P., Jan. 1, 2008. Intercompany and Non-Cash Transfers Analysis (Alix Partners, May 28, 2020), 164 Source: The Pink Sheet, "Purdue Frederick will submit NDA for MS Contin," The Pink Sheet, Jul. 8, 1985. U.S. Food and Drug Administration, "Orange Book Approved Drug Products with Therapeutic Equivalence Evaluations". Daniel J. Frisch and Lesley Cameron, "Economic Analysis of the MS Contin Royalty Rate Paid By Purdue Pharma L.P.," Horst Frisch Incorporated, Aug. 25, 2017. Manufacturer's License Agreement between Mundipharma A.G. Assignment and Assumption Agreement for MS Contin between Purdue Pharma L.P. and Rhodes Pharma L.P., Oct. 1, 2016.

### PPLP (Licensee) Retained Most of the Profits from Its U.S. Sales of MS Contin

Authorized Generics to Mundipharma A.G. and kept 85% of the During 2009–2010, PPLP paid 15% of profits on MS Contin profits.

Year	Profits on Authorized Generics	Profit Share on AG (15%)	Mundipharma (Licensor) Profit Share	Mundipharma Purdue Licensor) Profit (Licensee) Profit Share Share
2009	\$3,419,048	\$512,857	<b>2009</b> \$3,419,048 \$512,857 15% <b>85%</b>	85%
2010	\$5,798,290	\$869,744	15%	85%
Total	\$9,217,338	\$9,217,338 \$1,382,601 15%	15%	85%

Royalty rate on branded MS Contin left most of the operating profit (85%) with PPLP (2009-2010); Mundipharma A.G. (licensor) obtained 15%. Butrans Authorized Generic (3E)

### PPLP Received Payments from Rhodes Pharma for **Butrans Authorized Generic ("AG") Sales**

Rhodes Pharma as a non-exclusive distributor with the right to market, distribute, and sell Butrans AG. Rhodes Pharma agreed to pay PPLP On July 1, 2017, PPLP and Rhodes Pharma jointly launched Butrans AG based on an informal agreement. On December 5, 2018, the two parties entered into an official distribution agreement that appointed for Butrans AG product cost, storage, and shipping, in addition to a gross profit share.

generics' market share was greater than 15%. From 2017 to September Pursuant to this distribution agreement, the profit share of 75% of gross 5, 2019, PPLP received \$77MM from Rhodes Pharma as profit share profit would be reduced to 50% of gross profit if there is generic entry not authorized by PPLP, or 25% of gross profit if PPLP's authorized payments.

and licensee, PPLP was not disadvantaged relative to benchmarks from Based on an analysis of the effective profit split between the licensor arm's-length agreements.

Source: Intercompany and Non-Cash Transfers Analysis (Alix Partners, May 28, 2020), page 282.

Part 1

## PPLP In-Licensed Butrans From Third-Party

in an PPLP in-licensed the patch technology for the product Butrans (an agreement dated April 12, 1995. opioid analgesic) from

- License to use, sell the product and license to patents, system design, and know-how in the US
- Royalty of 5.5% of net sales

2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2017, and 2018. The 1995 license agreement was then amended in 1996, 2007,

Butrans was approved by FDA in 2010 under NDA 021306.

# **Butrans Loss of Exclusivity and Generics Background**

PPLP expected Rhodes Pharma to launch Butrans AG upon the loss of exclusivity in September 2017.

Used as assumption in PPLP 2017 budget

Rhodes Pharma expected early generics competition.

- In 2014 and 2015, Watson, Actavis, and Alvogen filed ANDAs to market generic versions of Butrans prior to patent expiry

PPLP settled these lawsuits in 2016

In January 2017, Rhodes Pharma proposed launching Butrans AG several months before loss of exclusivity.

- Eventually PPLP agreed to launch Butrans AG in July 2017

In the case of no early competing Butrans generics, Rhodes Pharma agreed to sell Butrans AG at least 55% of branded list price.

Source: PPLPUCC004082459, tab 48, email 25 October 2017 FW: Updated: Recap: Butrans AG deal with Rhodes. PPLPUCC-PRIV00017051, page 20.

## **Butrans AG Distributor Agreement Background**

PPLP and Rhodes Pharma jointly launched Butrans AG on July 1, Rhodes Pharma officially entered into a distribution agreement on 2017 based on an informal agreement. Subsequently, PPLP and December 5, 2018. Rhodes Pharma appointed as a non-exclusive distributor with the right to market, distribute, and sell

Profit share specified in December 5, 2018 agreement:

- 75% of gross profit to PPLP
- True up of 100% of Gross Profit to PPLP for any sales exceeding 52% of market demand
- 50% of gross profit to PPLP if other generics have entered the market
- 25% of gross profit to PPLP if PPLP Butrans AG represents 15% or more of

Source: Rhodes - Purdue FCF Movements 22, slide 23; Distributor Agreement PPLP and Rhodes Pharmaceuticals dated Dec. 5, 2018, section 2.1.1

Appendix A

### PPLP Invested R&D Resources in Developing a Second Generation of Butrans Products

Butrans 2nd generation was an R&D project at PPLP.

- Intended to extend exclusivity on the Butrans brand to 2022 by replacing the original Butrans
- Internal document dated 25 March 2015 reports that PPLP was targeting 31 March 2016 for NDA filing and 2017 for launch
- Presentation to investors dated 29 October 2015 suggests that Butrans 2nd generation was in phase I of development
- Butrans 2nd generation was removed from R&D updates to the Board of Directors by late 2016

Phase I trial for Butrans 2nd generation in China on May 13, 2019. Research suggests that Mundipharma initiated enrollment in a

### **Butrans AG Profit Sharing Agreement Negotiation Between PPLP and Rhodes Pharma**

PPLP and Rhodes negotiated the profit share arrangement:

- In 2016 and 2017, Rhodes sought agreement to launch Butrans AG
- and 50% thereafter; Rhodes did not agree to 0% share and countered PPLP wanted to set Rhodes' profit share at 0% in 2017, 25% in 2018, with 10%, to which PPLP did not agree

Rhodes Pharma payments to PPLP under the December 8, 2018 distribution agreement:

- Product cost, storage, and shipping costs
- Royalty payment of 75% of gross profit, reduced to:
- 50% gross profit for generic entry not authorized by PPLP
- 25% of gross profit for authorized generics market share greater than 15%

PPLP was not disadvantaged as it kept more than 50% profit share.

Source: PPLPUCC004082459, tab 48, email 25 October 2017 FW: Updated: Recap: Butrans AG deal with Rhodes. Distribution Agreement between royalty of 5.5% of net sales according to PPLP and Rhodes Pharma, Dec. 5, 2018. PPLPUCC003432965. Rhodes Pharma also had a prorated \_\_\_\_ royalty of 5.5% of net sales according to Schedule 1.1C of the Distribution Agreement between PPLP and Rhodes Pharma, Dec. 5, 2018 and Section 3.1.b.i of License agreement between PPLP and \_\_\_\_\_ dated Apr. 12, 1995.

### Royalties

Generic and Branded Dilaudid License (3C)

### PPLP License for Generic and Branded Dilaudid to **Rhodes Pharma**

In 2010, PPLP granted Rhodes Pharma a license to sell an authorized generic version of Dilaudid. There was no written agreement for this license, and no royalty payments were made. Prior to this, PPLP had acquired U.S. rights to Dilaudid in 2007 and 2008 from Abbott.

On October 1, 2016, PPLP transferred its rights, title, and interest in Dilaudid to PRA L.P. for no consideration. Even assuming a royalty rate of 10% (i.e., similar to the related party royalty rate paid by PPLP on its sales of MS Contin, or the upper end of comparable third-Pharma's estimated sales of Dilaudid AG would total \$4.0MM during 2010– substitutes), the royalty payments associated with the licensing on Rhodes party royalty rates for a mature, well-established product with ample

value. Over the entire 2008-2017 period, only \$28.5MM in cash was distributed by Rhodes Pharma outside the Debtor Group (i.e., to the Sacklers), prior to the underpayments or overpayments to Rhodes Pharma by PPLP would generally be netted out within the debtor entities, and hence do not represent a loss of Rhodes Pharma is currently part of the Debtor Group. Therefore, contribution of Rhodes Pharma to PPLP.

### Royalties on Rhodes Pharma's Sale of Dilaudid AG at a Royalty Rate of 10% is \$4.0MM

Pharma based on its Dilaudid AG sales following the license but prior to Royalty payments to PPLP of \$4.0MM would be expected from Rhodes the transfer of rights to PRA L.P. in 2016, based on following assumptions:

- based on Bloomberg Symphony data multiplied by a gross-to-net ratio of Dilaudid AG net sales estimated by taking Rhodes Pharma gross sales 17% (using the ratio of net sales to gross sales during 2016–2018)
- i.e., similar to the related party royalty rate paid by PPLP on its sales of MS Royalty payments at a royalty rate of 10% of net sales during 2010–2015, Contin, or the upper end of comparable third-party royalty rates for a mature, well-established product with ample substitutes

			Dilandid Ar	Vilaudid Authorized Generic sales	eneric sales		
\$ In millions	2010	2011	2012	2013	2014	2015	Total
Gross Sales	\$2.4	\$24.1	\$44.2	\$55.8	\$53.0	\$53.7	\$233.3
Net Sales	\$0.4	\$4.1	\$7.5	\$9.5	\$9.0	\$9.1	\$39.6
Royalty at 10%	\$0	\$0.4	\$0.8	\$0.9	\$0°.9	\$0.9	\$4.0

Note: Net sales were estimated using the gross sales data from Bloomberg and the weighted average net to gross sales ratio for 2016-2018 of 17%. Source: Bloomberg Symphony. The royalty payments at an assumed royalty rate of 5% of net sales would total \$1.9MM.

### Transfers of Product Rights For No Consideration

Foreign Non-ADF OxyContin Rights Transfer (4H)

### Estimated Value of the Transfer of Non-ADF Rights to **PRA L.P. is \$252MM**

under the applicable foreign license agreements with ex-U.S. IACs to transferred all of its rights, title, and interest in non-ADF OxyContin assignment and assumption agreements pursuant to which PPLP PRA L.P. PPLP did not receive any consideration for this transfer. On January 1, 2017, PPLP and PRA L.P. entered into multiple

discounted cash flows (DCF) of the non-ADF IP rights at the time of the transfer. The DCF is based on actual and future sales forecasts, and the use of arm's-length royalty rates appropriate for foreign sales of The value of this transfer was estimated based on the expected non-ADF OxyContin.

rate of 9% and a tax rate of 0% (as a non-tax transfer). This represents (January 1, 2017). This calculation is based on management forecasts The estimated value of this IP rights transfer from PPLP to PRA L.P. is of non-ADF OxyContin royalties in ex-U.S. markets, using a discount \$252MM based on the DCF methodology as of the transfer date a transfer in value from PPLP to PRA L.P.

#### Transfer of Non-ADF OxyContin Rights From PPLP to PRA L.P.

and interest were transferred in a series of 30 different assignment On January 1, 2017, PPLP transferred its foreign licenses of non-ADF OxyContin to PRA L.P. for no consideration. The rights, title, agreements. Prior to the rights transfer, PPLP received royalties from IACs on sales of non-ADF OxyContin in these foreign territories.

ADF OxyContin business, even as it pertains to foreign markets. It is It is our understanding that PPLP transferred these rights in order to remove any ongoing association between PPLP and the IACs' nonalso our understanding that PRA L.P. has received royalty income on IAC sales of non-ADF OxyContin since January 1, 2017.

# Example of the Assignment of the Rights in Germany

#### ASSIGNMENT AND ASSUMPTION AGREEMENT (OxyContin® Preparations - Germany)

January 1, 2017 (the "Assignment Date") is by and between Purdue Pharma L.P., a Delaware limited partnership ("Assignor"), and Purdue Holdings L.P. a Delaware limited partnership This Assignment and Assumption Agreement (the "Agreement") effective

#### WITNESSETH

Manufacturer's Licence Agreement for OxyContin® Preparation for the territory of Germany, WHEREAS, Assignor and Mundipharma D.C. BV entered into that certain dated January 1, 2016 (the "Licence Agreement");

WHEREAS, pursuant to Section 2.9.1 of the Licence Agreement, Assignor may assign or transfer its rights thereunder;

WHEREAS, in connection with the foregoing right, Assignor desires to assign and Assignee desires to assume the Licence Agreement upon the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the promises and mutual covenants set forth herein, the parties hereto agree as follows:

hereby assigned, transferred and conveyed unto Assignee, its successors and assigns, to its and Assignment. Assignor does hereby convey, transfer, assign and deliver to Assignee, and Assignee does hereby accept from Assignor, all of Assignor's right, title and interest in, to and under the Licence Agreement, to have and to hold the Licence Agreement their own use and behalf forever.

#### OxyContin in the Following Countries and Regions PPLP Assigned to PRA L.P. the Rights to Non-ADF

11. Germany
<b>Arab States</b>

13. Iceland

14. Ireland

Finland

Egypt

10. France

19. Netherlands

18. Lebanon

**Denmark** 

Cyprus

. 0

China

17. Kuwait

16. Jordan

15. Italy

Eastern Europe

Central and

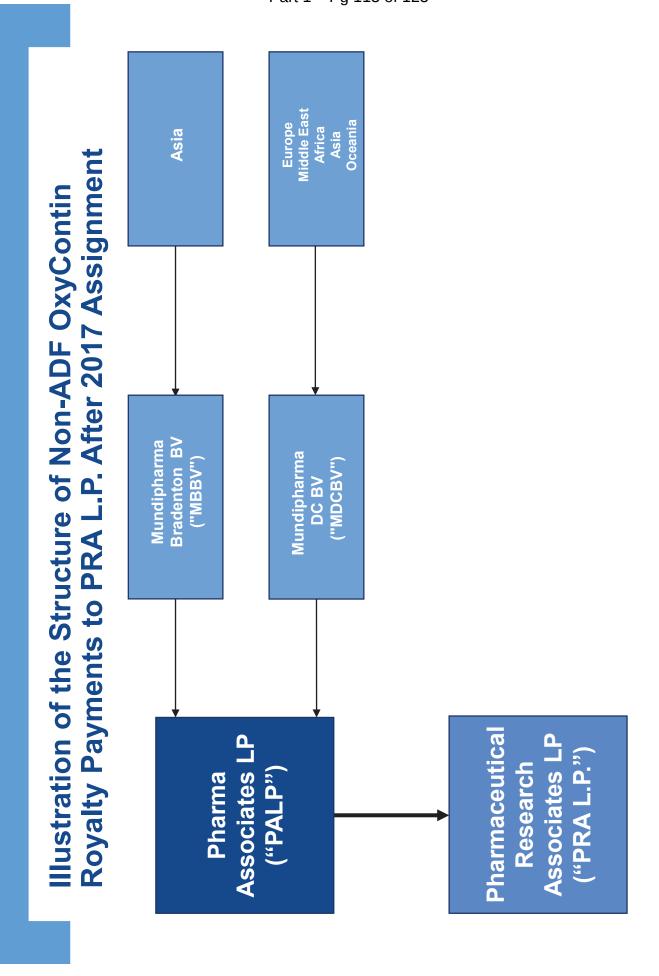
Belgium

Austria

21. Norway

Source: Assignment and Assumption Agreement for Respective Countries, January 1, 2017, page 1.

Source: Purdue Pharma L.P. Corporate Structure Detail, April 22, 2019, Slides 14–15. Royalties from China, Hong Kong, and Japan go through MBBV, and royalties from other regions in Asia go through MDCBV.



#### က

### In 2016 (Prior to Rights Transfer), PPLP's Non-ADF Royalty Rates Were Generally 7%, but 13% in Certain Countries

Effective date	Licensor	Licensee	Territory	Royalty Rate
2016	Purdue Pharma L.P.	Mundipharma DC B.V.	Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Montenegro, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine, Austria, Austria, Belgium, China, Cyprus, Denmark, Egypt, Finland, France, Germany, Hong Kong, Iceland, Ireland, Italy, Lebanon, Netherlands, New Zealand, Norway, Poland, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, The Philippines, The United Kingdom	%2
2016	Purdue Pharma L.P.	Mundipharma DC B.V.	Arab States: Algeria, Bahrain, East Africa, Iraq, Libya, Morocco, Oman, Pakistan, Qatar, Syria, Tunisia, United Arab Emirates, Yemen, West Africa, Jordan, Kuwait	13%

Source: OxyContin agreements for ADF (2018) and non-ADF (2016). Royalty statements show that China pays a royalty rate of 8%. See Purdue Pharma L.P. Corporate Structure Detail, April 22, 2019, 15–16. The Manufacturer's License Agreements (MLAs) between PPLP and Mundipharma DC B.V. regarding OxyContin Preparations for various countries effective January 1, 2016; The MLA between PPLP and Mundipharma DC. B.V. regarding OxyContin Preparations in Arab States effective January 1, 2016. Source: In 2016, 99.7% of non-ADF royalties were paid at a royalty rate of 7%. The average royalty rate weighted by sales was 7.4%.

### The Weighted Average Non-ADF Royalty Rate Received by PPLP in 2016 Was ∼7.4%

Country	Royalty Rate (%)	Royalty Amount (\$ in thousands)	Implied Sales (\$ in thousands)
Arab States	13	\$38	\$292
Austria	7	\$16	\$229
Belgium	7	\$120	\$1,714
China	8	\$5,204	\$65,050
Cyprus	7	\$40	\$571
Denmark	7	\$150	\$2,143
Eastern Europe	7	\$206	\$2,943
Finland	7	\$169	\$2,414
France	7	\$1,685	\$24,071
Germany	7	\$1,319	\$18,843
Hong Kong	7	-\$10	-\$143
Iceland	7	\$6	\$86
Ireland	7	\$84	\$1,200
Israel	7	\$122	\$1,743
Italy	7	\$514	\$7,343
Netherlands	7	\$255	\$3,643
New Zealand	7	6\$	\$129
Norway	7	\$178	\$2,543
Philipines	7	\$70	\$1,000
Poland	7	\$156	\$2,229
South Africa	7	\$17	\$243
Spain	7	\$116	\$1,657
Sweden	7	\$280	\$4,000
Switzerland	7	\$327	\$4,671
U.K.	7	\$2,610	\$37,286
Total	7.4	\$13,681	\$185,899

Source: PPLP Corporate Structure Detail, April 22, 2019, 14.

# OxyContin was Launched in 1995 in the U.S. and Between 1996 and 2013 in Ex-U.S. Markets

Territory	Entity	Date of Launch
United States	Purdue Pharma LP	December 1995
Canada	Purdue Pharma	June 1996
Nordic	Norpharma / Mundipharma	December 1996
Germany	Mundipharma GmbH	August 1998
Ireland	Mundipharma Pharm. Ltd	January 1999
Australia	Mundipharma Pty Ltd	September 1999
United Kingdom	Napp Pharma. Ltd	January 2000
Netherlands	Mundipharma Pharm. BV	December 2000
Switzerland	Mundipharma Medical Co	February 2001
Eastern Europe	Mundipharma Medical GmbH	February 2001
Austria	Mundipharma GesmbH	March 2001
South Korea	Mundipharma Korea Ltd	March 2001
France	Mundipharma SAS	April 2002
Spain	Mundipharma SL	June 2004
Italy	Mundipharma Srl	March 2005
New Zealand	Mundipharma NZ Ltd	July 2005
Southeast Asia	P'pines, HK, Malaysia, S'pore	July 2005
China	MCPC	August 2004
Belgium	Mundipharma CVA	February 2007
Poland	Norpharma	July 2008
South Africa	Mundipharma Pty Ltd	March 2012
Latin America	Brazil, Colombia	July 2013

Source: PPLPUCC002458291 at tab "Page 7."

#### Methodology to Value Transfer of Non-ADF OxyContin Rights

The value of the transfer of the non-ADF rights was based on a DCF valuation methodology.

The DCF is based on management forecasts and corroborated with The present value calculation is as of January 1, 2017 (the transfer date) based on pre-tax cash flows, as this was a non-tax transfer. third-party sources.

## Assumptions for Valuation of Non-ADF OxyContin Rights

19-23649-rdd

The cash flow forecasts are based on management forecasts of royalties and the implied sales of non-ADF royalty rate of 12.5% (see analysis of ex-U.S. OxyContin royalties). The royalty income non-ADF OxyContin sales in foreign markets. The royalty income was based on an arm's-length is included for countries for which the non-ADF rights were transferred. This applies to MBBV (China), MDC, and Napp (U.K.). This excludes MBBV (Japan), as we assume that Japan is switching, or has already switched, from non-ADF to ADF OxyContin.

PPLP's internal financial analyses. The discount period is based on a quarterly payment schedule (plus 30 days) to match the expected timing of cash flows. The valuation was performed on a pre-The present value as of January 1, 2017 is based on a discount rate of 9%, consistent with tax basis, as this was a non-tax transfer from PPLP to PRA L.P.

forecasts OxyContin net U.S. sales will decline by 12.8% annually from 2019–2023, with a drop of 2019–2023, with a drop of 92.5% from 2023 to 2024 after ADF OxyContin loses exclusivity. PPLP This decline in future royalties assumes that non-ADF ex-U.S. sales will decline following the end of ADF OxyContin exclusivity. In comparison, in the U.S., PPLP sales have decreased by 13.3% The terminal value is calculated using a growth rate of -10% after 2024 and a 9% discount rate. and 10.0% annually in the last three (2015-2018) and five (2013-2018) years, respectively. Further, PPLP forecasts that OxyContin gross U.S. sales will decline by 11.9% annually from 77.3% from 2023 to 2024 after ADF OxyContin loses exclusivity.

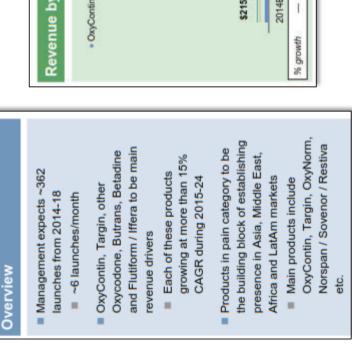
Source: Consolidated Long-Term Plan Model 2019 - 2027 (June 2019 LE) at tab "OxyContin Net Sales." Purdue Pharma Financial Statement 2013 - 2017. Purdue Pharma Financial Statement 2018 Q4. Henry Grabowski, Genia Long, Richard Mortimer & Ani Boyo, "Updated trends in US brand-name and generic drug competition," Page 840.

#### Estimates of Ex-U.S. Non-ADF OxyContin Sales After 2017

are based on actual royalty amounts for 2017 to 2019, and based on The estimates for ex-U.S. non-ADF OxyContin sales and royalties IAC sales forecast for 2020 to 2024.

showing forecasts of OxyContin sales beyond 2020; as well as the We also reviewed other PPLP contemporaneous projections ex-U.S. OxyContin sales analysis prepared or reviewed by Evercore, JP Morgan, and PJT Partners.

#### July 2014 JP Morgan Presentation Forecast a 13.9% **Growth for OxyContin Ex-U.S. From 2015–2024**





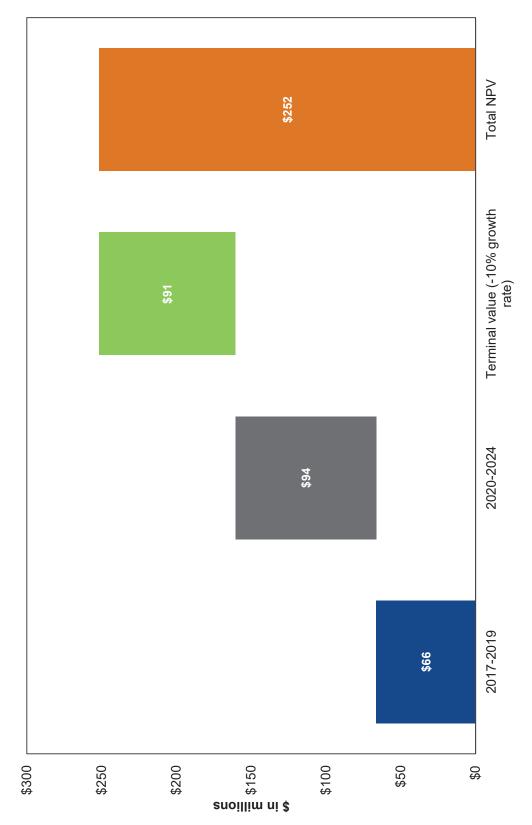
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### Evercore October 2018 Forecast Sales Growth for Ex-U.S. OxyContin of 2% Annually From 2018 to 2022

Financial Summary –	/ - Ex-l	Ex-USA IACs	ACS						
	2017A	2018E	2019E	2020E	2021E	2022E	'18E - 22E CAGR		(\$ in millions) Commentary
Net Sales	\$2,106	\$2,408	\$2,455	\$2,589	\$2,810	\$2,990	7.3%		
Cost of Sales	(718)	(821)	(831)	(862)	(948)	(1,032)			Geographically, revenue growth is
Royalties Payable	(22)	(53)	(55)	(67)	(74)	(80)			driven primarily by China
Gross Margin	\$1,331	\$1,534	\$1,570	\$1,660	\$1,788	\$1,879	7.1%		From a product perspective, growth
Total Deductions (Shipping and Discounts)	(64)	(73)	(74)	(77)	(82)	(87)			in Invokana and Flutiform help offset
Gross Trading Profit	\$1,267	\$1,461	\$1,496	\$1,583	\$1,706	\$1,792	7.2%		the decime in Targin and Truxima
Royalties Receivable	40	21	19	18	18	18			Margin expansion underpinned
Other Revenue	2	9	8	10	13	15			primarily by declining R&D and
Total Gross Income	\$1,312	\$1,488	\$1,522	\$1,612	\$1,736	\$1,825	6.8%		bolstered with decreasing selling
Selling and Promotion Cost	(592)	(969)	(618)	(643)	(671)	(694)			and promotion and G&A related
Medical Affairs	(83)	(86)	(6)	(86)	(100)	(101)			cocinadva
General and Administration	(264)	(297)	(306)	(317)	(312)	(319)			Top Products in 2018:
Overhead and S&P	(\$833)	(\$881)	(\$1,020)	(\$1,057)	(\$1,083)	(\$1,113)			(1000)
Profit Before Other Charges	\$373	\$497	\$502	\$555	\$654	\$711	13.8%		Oxyconum (\$281)
R&D	(190)	(119)	(190)	(155)	(96)	(63)			► Targin (\$272)
Other Charges <sup>1</sup>	(24)	(13)	(6)	(10)	-	(6)			
EBITDA	\$160	\$3052	\$304	\$390	\$559	\$609	30.7%		ruxima (\$234)
Normalized EBITDA	\$429	\$4902	\$500	\$527	\$572	\$609		•	Top Products in 2022:
Amortization	(23)	(22)	(22)	(25)	(25)	(22)			1
Depreciation	(34)	(37)	(41)	(44)	(44)	(42)			betadine (\$347)
EBIT	\$103	\$246	\$238	\$321	\$489	\$539	39.2%		► OxyContin (\$306)
Memo:									Total (6207)
COGS (% of Sales)	34.1%	34.1%	33.8%	33.3%	33.7%	34.5%			l argin (\$207)

Source: Evercore, "Project Malta Discussion Materials," October 17, 2018, page 36.

#### **Baseline Valuation of Non-ADF OxyContin Rights** Transfer: \$252MM (PV as of Jan. 1, 2017)



13.3% and 10.0% annually in the last three (2015–2018) and five (2013–2018) years respectively. Further, PPLP forecasted net sales decline by 12.8% Note: For this calculation, a 0% tax rate, -10% terminal value growth rate, and 9% discount rate were assumed. PPLP net sales have decreased by annually from 2019–2023.

## Impact on transfer value of non-ADF OxyContin royalties using 12.5% arm's-length royalty rate

\$ in millions	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Value	Total
Non-ADF OxyContin ex- US Sales	\$177.9	\$168.5	\$274.9	\$186.9	\$231.8	\$251.8	\$276.8	\$299.0	\$1,416.5	\$3,284.2
Actual royalty rate	7.5%	7.1%	7.0%	7.8%	7.8%	7.8%	7.8%	%6.7	7.9%	n/a
Total royalties	\$13.0	\$11.9	\$19.2	\$14.5	\$18.1	\$19.7	\$21.7	\$23.5	\$111.4	\$253.1
Arm's-length royalty rate	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	n/a
Royalty rate adjustment factor	1.7x	1.8x	1.8x	1.6x	1.6x	1.6x	1.6x	1.6x	1.6x	n/a
Total arm's-length royalties	\$22.2	\$21.1	\$34.4	\$23.4	\$29.0	\$31.5	\$34.6	\$37.4	\$177.1	\$410.5
Additional royalties	\$9.2	\$9.1	\$15.1	\$8.8	\$10.9	\$11.8	\$12.9	\$13.9	\$65.7	\$157.4
Present value as of January 1, 2017	\$20.9	\$18.2	\$27.2	\$17.0	\$19.3	\$19.3	\$19.4	\$19.2	\$91.2	\$251.8

Note: The terminal value was based on a -10% growth and 9% discount rate.

### Sensitivity Analysis: Impact on Valuation of Alternative Royalty Rates and Terminal Value Growth Rates

: :- e			Non-ADF Roy	Non-ADF Royalty Rate (%)	
	SIIOIII	%0'.2	8.0%	10.0%	12.5%
	-15.0%	\$128	\$146	\$183	\$229
	-11.5%	\$136	\$156	\$195	
rmins Wth	-10%	\$141	\$161	\$201	\$252
	0.0%	\$210	\$240	\$300	\$374

This analysis does not consider how the incentives to sell ADF OxyContin in non-ADF markets would change due to changes in the market royalty rates for the two products. This analysis assumes that PPLP wholly owns the rights to non-ADF OxyContin, as well as all associated trademarks and know-how.

Note: PPLP sales have decreased by 16.2% and 11.8% annually in the last 3 (2015 – 2018) and 5 (2013 – 2018) years respectively. Using terminal value growth rates of -15% and -11.5% to estimate the decrease in sales for the future; valuations are \$229.5MM and \$244.5MM with a 0% tax rate.

#### Other Considerations for Transfer of Ex-U.S. Non-ADF OxyContin Rights

19-23649-rdd

OxyContin could change due to the differential in the arm's-length markets to switch to ADF, this would reduce the value of the nonroyalty rates for non-ADF vs. ADF OxyContin cause some or all This analysis does not consider how ex-U.S. sales of non-ADF royalty rates for ADF vs. non-ADF. If going-forward changes to ADF rights transfer. This analysis also does not consider the potential business need for PPLP to divest its ex-U.S. non-ADF OxyContin rights.